

Product Catalog



**Complete coating
and lining solutions**

Product Index

Generic Class by Function

FINISHES

Intercure 99
 Intercure 3240
 Intercure 4500
 Interfine 629HS
 Interfine 691
 Interfine 878
 Interfine 979
 Interfine 1080
 Intergard 740
 Intergard 1735
 Interlac 665
 Interlac 3220
 Interplus 880
 Intersheen 579
 Interthane 870
 Interthane 990
 Interthane 3230

FIRE PROTECTION

Chartek 7
 Chartek 7E
 Chartek 8E
 Chartek 1709
 Interchar 212
 Interchar 963
 Interchar 973
 Interchar 1120
 Interchar 1190
 Interchar 1260
 Interchar 2060
 Interchar 2090
 Interchar 2200

FOUL RELEASE

Intersleek 737
 Intersleek 970

HEAVY DUTY ANTI-CORROSIVE

Intershield 300
 Interzone 485
 Interzone 505
 Interzone 954
 Interzone 954BG
 Interzone 1000
 Interzone 3507

INTERMEDIATES

Intercure 384
 Intercure 420
 Intergard 345
 Intergard 400
 Intergard 410
 Intergard 475HS
 Interplus 770

TEMPERATURE RESISTANT

Intertherm 50
 Intertherm 228HS
 Intertherm 715
 Intertherm 751CSA
 Intertherm 875
 Intertherm 890
 Intertherm 891
 Intertherm 7050

PRIMER/FINISHES

Intercryl 525
 Intercure 99
 Intergard 345
 Interlac 789

LININGS

Ceilmate 380 Primer
 Enviroline 376F-30
 Enviroline 376F-30LT
 Enviroline 376F-60
 Enviroline 376F-60LT
 Enviroline 405HT
 Interline 399
 Interline 850
 Interline 925
 Interline 955
 Interline 975
 Interline 982
 Interline 984
 Interline 994

PRIMERS

Intercryl 525
 Intercure 200
 Intercure 200HS
 Intercure 324
 Intercure 3240G
 Intercure 3240HG
 Intercure 3240SG
 Intergard 214
 Intergard 251
 Intergard 269
 Intergard 307
 Intergard 405
 Intergard 2510
 Intergard 3210
 Interlac 789
 Interlac 3220HG
 Interlac 3220SG
 Interplate 398
 Interplate 855
 Interplate 937
 Interplus 256
 Interplus 356
 Interprime 198
 Interprime 306
 Interprime 539
 Interseal 670HS
 Interthane 3230G
 Interthane 3230HG
 Interthane 3230M
 Interthane 3230SG
 Interzinc 22
 Interzinc 52
 Interzinc 72
 Interzinc 315
 Interzinc 2280

MISCELLANEOUS

Intergard 821
 Interprime 160
 Thinners/Cleaners/Misc

1 Intercure 22 and Interzinc 2280 are included as a product series under this banner
 2 Intergard 3210, Interlac 3220, Interthane 3230 and Intercure 3240 are included as a 3200 product series under this banner
 3 Metallic versions of Interthane 870 and Interthane 990 are included under these banners
 4 Specification & supply of certain Interchar products may be restricted in some sBUs due to region-specific approvals and certifications

Product Index

Numerical

PRODUCT NUMBER	PRODUCT DESCRIPTION	PRODUCT AVAILABILITY	MANUAL SECTION
7	Epoxy Intumescent Fireproofing	Global	Chartek
7E	Epoxy Intumescent Fireproofing	Global	Chartek
8E	Epoxy Intumescent Fireproofing	Global	Chartek
22	Inorganic Zinc-Rich Silicate Primer	Global	Interzinc
50	Silicone Aluminium Heat Resistant Coating	Global	Intertherm
52	Epoxy Zinc-Rich Primer	Global	Interzinc
72	Epoxy Zinc-Rich Primer	UK	Interzinc
99	Rapid Cure Polyaspartic Primer Finish	Global	Intercure
160	Etch Solution	UK	Interprime
198	Alkyd Primer	UK	Interprime
200	Rapid Recoat Zinc Phosphate Epoxy Primer	Global	Intercure
200HS	Rapid Recoat Zinc Phosphate Epoxy Primer	Global	Intercure
212	Epoxy Intumescent Fireproofing	Global	Interchar
214	Epoxy Aluminium Sealer Coat	UK	Intergard
228HS	Epoxy Phenolic	Global	Intertherm
251	Zinc Phosphate Epoxy Primer	Global	Intergard
256	Surface Tolerant Aluminium Epoxy	UK	Interplus
269	Epoxy Primer/Tie Coat	Global	Intergard
300	Abrasion Resistant Pure Epoxy	Global	Intershield
306	Alkyd Primer	UK	Interprime
307	Zinc Phosphate Epoxy Blast Primer/Sealer	UK	Intergard
315	Rapid Recoat Epoxy Zinc-Rich Primer	Global	Interzinc
324	Rapid Recoat Zinc Phosphate/MIO Epoxy Primer	UK	Intercure
345	Epoxy	Global	Intergard
356	Surface Tolerant Aluminium Epoxy	Global	Interplus
376F-30	Epoxy Novolac Solvent Free Chemical Resistant Lining	Global	Enviroline
376F-30LT	Epoxy Novolac Solvent Free Lining	Global	Enviroline
376F-60	Epoxy Novolac Solvent Free Chemical Resistant Lining	Global	Enviroline
376F-60LT	Epoxy Novolac Solvent Free Lining	Global	Enviroline
380	Primer	Global	Ceilmate
384	Rapid Recoat Epoxy MIO Intermediate	UK	Intercure
398	Epoxy Pre-Fabrication Primer	UK	Interplate
399	Epoxy Novolac Tank Lining	Global	Interline
400	Epoxy MIO Primer/Intermediate	UK	Intergard
405	Epoxy MIO Primer/Sealer Coat	UK	Intergard
405HT	Epoxy Novolac Solvent Free Chemical Resistant Lining	Global	Enviroline
410	High Build, Epoxy Coating	UK	Intergard
420	Rapid Recoat Epoxy MIO Intermediate	Global	Intercure
475HS	High Build Epoxy Intermediate	Global	Intergard

Protective Coatings

Product Index

Numerical

PRODUCT NUMBER	PRODUCT DESCRIPTION	PRODUCT AVAILABILITY	MANUAL SECTION
485	Ultra High Build Epoxy	Global	Interzone
505	Glass-Flake Epoxy	Global	Interzone
525	Single Pack, Water Borne Acrylic Primer-Finish	UK	Intercryl
539	Polyvinyl Butyral, Phosphoric Acid Etch Primer	UK	Interprime
579	Single Pack, Modified Acrylic Finish	UK	Intersheen
629HS	High Solids, Epoxy Acrylic Finish	UK	Interfine
665	Alkyd Gloss Finish	UK	Interlac
670HS	Surface Tolerant High Build Epoxy	Global	Interseal
691	Isocyanate Free, Epoxy Acrylic Finish	UK	Interfine
715	Single Component Temperature Indicating Coating	Global	Intertherm
737	Biocide-Free Silicone Elastomer	Global	Intersleek
740	Epoxy Gloss Finish	Global	Intergard
751CSA	Heat Resistant Cold Spray Aluminium	Global	Intertherm
770	Surface Tolerant Epoxy	UK	Interplus
789	Modified Alkyd Primer/Finish	UK	Interlac
821	Solvent Free Epoxy Filler	Global	Intergard
850	Epoxy Phenolic Tank Lining	Global	Interline
855	Weldable Zinc Silicate Pre-Fabrication Primer	UK	Interplate
870	Semi-Gloss Polyurethane Finish	Global	Interthane
875	Silicone Acrylic Heat Resistant Coating	Global	Intertherm
878	Acrylic Polysiloxane	Global	Interfine
880	Surface Tolerant Polyurethane Primer Finish	UK	Interplus
890	High Temperature Resistant Maintenance Primer	UK	Intertherm
891	Single Pack, Aluminium Temperature Resistant Coating	UK	Intertherm
925	Epoxy Solvent Free Lining	UK	Interline
937	Weldable Zinc Silicate Pre-Fabrication Primer	UK	Interplate
954	High Build Modified Epoxy Barrier Coating	Global	Interzone
954BG	High Build Modified Epoxy Barrier Coating	UK	Interzone
955	Solvent Free Vinyl Ester Lining	UK	Interline
963	Acrylic Intumescent	Global	Interchar
970	Biocide-Free Fluoropolymer Foul Release	Global	Intersleek
973	Acrylic Intumescent	Global	Interchar
975	Solvent-Free Epoxy Tank Lining	Global	Interline
979	Acrylic Polysiloxane	Global	Interfine
982	Epoxy Holding Primer	UK	Interline
984	Solvent-Free Epoxy Phenolic Tank Lining	Global	Interline
990	Gloss Polyurethane Finish	Global	Interthane
994	Epoxy Phenolic Tank Lining	Global	Interline
1000	1mm Glass-Flake Epoxy	Global	Interzone

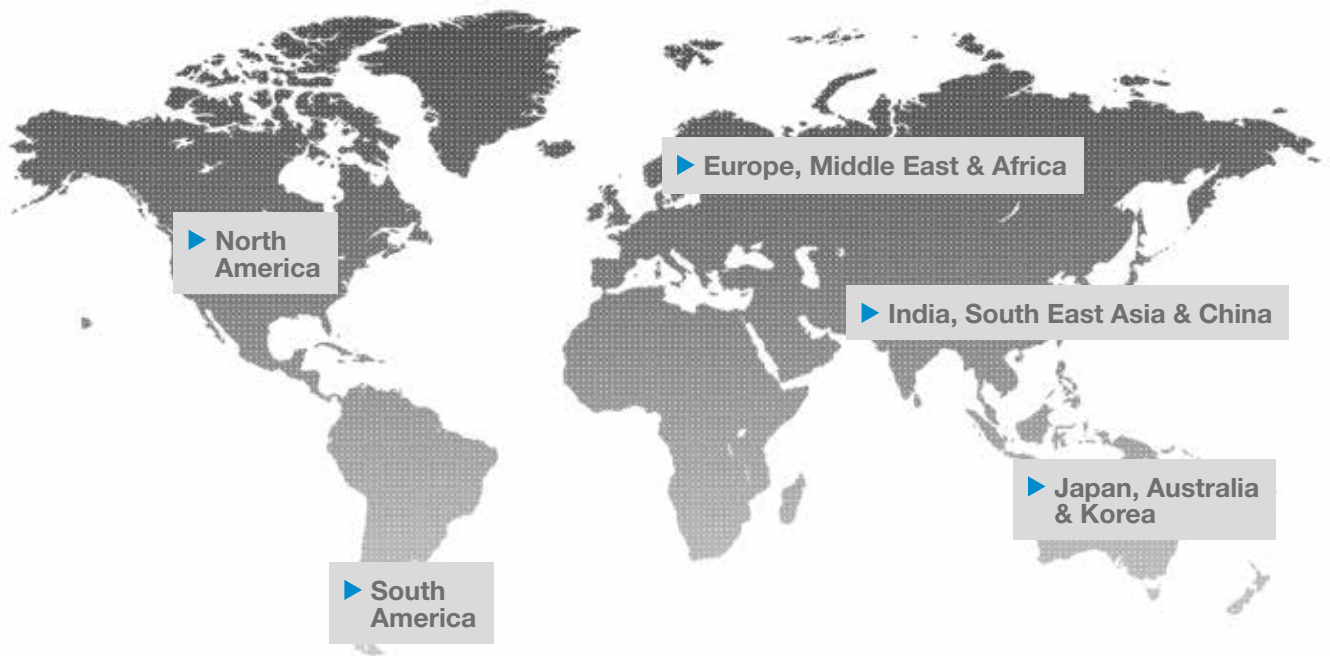
Protective Coatings

Product Index

Numerical

PRODUCT NUMBER	PRODUCT DESCRIPTION	PRODUCT AVAILABILITY	MANUAL SECTION
1080	Acrylic Polysiloxane Finish	Global	Interfine
1120	Water Borne Intumescent	Global	Interchar
1190	Single Pack, Water Borne Intumescent Coating	UK	Interchar
1260	Single Pack, Water Borne Intumescent Coating	UK	Interchar
1709	Epoxy Intumescent Fireproofing	Global	Chartek
1735	Water Borne Epoxy Finish	UK	Intergard
2060	Acrylic Intumescent	UK	Interchar
2090	Acrylic Intumescent	UK	Interchar
2200	Acrylic Intumescent	UK	Interchar
2280	Inorganic Zinc-Rich Silicate Primer	Global	Interzinc
2510	Epoxy Anti-corrosive Primer	Global	Intergard
3210	Epoxy Primer	Global	Intergard
3220HG	Alkyd Primer/Finish	Global	Interlac
3220SG	Alkyd Primer/Finish	Global	Interlac
3230G	Acrylic Polyurethane Primer/Finish	Global	Interthane
3230HG	Acrylic Polyurethane Primer/Finish	Global	Interthane
3230M	Acrylic Polyurethane Primer/Finish	Global	Interthane
3230SG	Acrylic Polyurethane Primer/Finish	Global	Interthane
3240G	Direct to Metal Polyaspartic	Global	Intercure
3240HG	Direct to Metal Polyaspartic	Global	Intercure
3240SG	Direct to Metal Polyaspartic	Global	Intercure
3507	Modified Epoxy Barrier Coating	Global	Interzone
4500	Direct to Metal Polyaspartic	Global	Intercure
7050	Epoxy Synthetic Insulation	Global	Intertherm
	Thinners/Cleaners/Miscellaneous	Global	International

World Wide Contacts



www.international-pc.com/contact-us

Definitions and Abbreviations

Part 1 of 3

TOLERANCES The numerical information quoted in the product data sheets has been derived from laboratory test data obtained under controlled conditions for the products described. Whilst every effort has been made to ensure accuracy, this information will be subject to minor variations obtained in normal manufacturing tolerances, and any fluctuations in ambient conditions during the application and curing periods.

COLOR Where a small number of colors is available product data sheets generally list these; where a wider range is available this is stated. Colors specified on a worldwide product data sheet will usually be available in all regions. Chromascan is quoted for some products; this is International's remote tinting system that gives control over specific color requests and allows production of a very wide range of colors from factory produced bases.

GLOSS LEVELS Typical gloss values have been determined in accordance with ISO 2813:1994 using a 60° gloss head. The categories used in the product data sheets are:

Finish (Sheen)	Gloss (60° Head)
Matt	0-15
Eggshell	16-30
Semi Gloss	31-60
Gloss	61-85
High Gloss	>85

In practice, the level of sheen and surface finish will be dependent upon a number of factors, including application and the condition of the surface to be overcoated.

DRY FILM THICKNESS (DFT) The thickness of the final dried film applied to the substrate. The DFT is typically measured using a magnetic gauge, which will give a value measured from the surface of the coating to the magnetic plane within the surface profile. The magnetic plane is the theoretical point within the surface profile that the DFT gauge sees as being the average position of the substrate.

Some variations exist in methods of DFT measurement; DFT gauges can be calibrated on smooth or blasted steel panels and a correction factor for surface profile may or may not be considered. ISO 2808:2007, ISO 19840:2004 and SSPC-PA2 are accepted standards for measuring DFT.

WET FILM THICKNESS (WFT) The initial thickness of the wet coating applied to the substrate.

VOLUME SOLIDS The volume solids figure given on the product data sheet is the percentage of the wet film that remains as the dry film and is obtained from a given wet film thickness under specified method and conditions. Unless otherwise stated, these figures have been determined under laboratory conditions using the test method described in the standard ISO 3233:1998 – Determination of percentage volume of non-volatile matter by measuring the density of a dried coating. The volume solids of a coating is determined using the recommended dry film thickness quoted on the product data sheet and a specified drying schedule at ambient temperature, i.e. 7 days at 23°C ± 1°C.

COVERAGE Theoretical coverage is calculated from a product's volume solids and a specific DFT:

$$\text{Metric: } \frac{\text{Volume solids (\%)} \times 10}{\text{DFT } (\mu\text{m})} \quad \text{US: } \frac{\text{Volume solids (\%)} \times 16.04}{\text{DFT (mils)}}$$

It is possible to calculate practical coverage using theoretical values and loss factors but these calculations are complex and subject to great variability in external factors such as environment, substrate, access limitations, application methods and the complexity of the structure being coated. It is advised that such calculations are left to professional estimators with experience and knowledge of the application of protective coatings under various site conditions. For further information on coverage and loss factors, please refer to the AkzoNobel document "Theoretical and Practical Coverage", available at www.international-pc.com.

DRYING TIME The drying times quoted in the product data sheets have been determined in the laboratory using a typical dry film thickness, the ambient temperature quoted in the relevant product data sheet, and the appropriate test method, i.e.

Touch Dry (ISO 9117-3:2010)

The surface dry state of a coating when ballotini (small glass spheres) can be lightly brushed away without damage to the surface of the coating. In this state the bulk of the coating is still mobile.

Definitions and Abbreviations

Part 2 of 3

DRYING TIME Continued...

Hard Dry (ISO 9117-1:2009)

The condition of the film in which it is dry throughout its thickness.

This through drying state is determined by the use of a “mechanical thumb” device which, when applied using a specified gauge, under specified pressure, torsion and time, does not mark or damage the film.

The drying times achieved in practice may show some slight fluctuation, particularly in climatic conditions where the substrate temperature differs significantly from the ambient air temperature. Other environmental factors such as air flow and relative humidity may also affect drying times.

OVERCOATING INTERVAL

The product data sheets give both minimum and maximum overcoating intervals and the figures quoted at the various temperatures are intended as guidelines, consistent with good painting practices. Certain terms require elaboration as follows:

Minimum

The minimum overcoating time quoted is an indication of the time required for the coating to attain the necessary state of dryness and hardness to allow the application of a further coat of paint. It assumes:

- The coating has been applied at the normal recommended thickness
- Environmental conditions both during and after application were as recommended for that particular coating, especially in respect of temperature, relative humidity and ventilation
- The paint used for overcoating is suitable for that purpose
- An understanding of the method of application. For example, if a coating can be applied by both brush and spray it is expected that overcoating may be carried out more rapidly if sprayed; it is the lower figure that is quoted.

If the above conditions are not met, the quoted minimum overcoating times are liable to variation and will invariably have to be extended.

Maximum

The maximum overcoating time indicates the allowable time period within which overcoating should take place in order to ensure acceptable intercoat adhesion is achieved.

Extended

Where an **extended** overcoating time is stated, the product can be overcoated after an indefinite time period but the anticipated level of intercoat adhesion can only be achieved if:

- The existing coating has been applied in accordance with good painting practices and at the specified film thickness
- The existing coating has the intended surface characteristics required for long term overcoatability. For example, an over-applied epoxy MIO may not have its usual textured surface and will no longer be overcoatable after ageing unless it is abraded
- The existing coating is intact, tightly adherent, clean, dry and free from all contaminants. For example, the rough textured surface of an MIO may require extensive cleaning, especially in an industrial and/or coastal environment

Glossy surfaces can negatively affect the adhesion of subsequent coats and should be lightly abraded, sweep blasted, or treated with other suitable processes to remove the sheen. Surface treatments should not cut through or detract from the performance of the underlying coating.

Note: Adhesion is also dependent upon the chemistry of the topcoat. By their nature, primers or undercoats with a higher pigment to binder ratio will have inherently better adhesion than finish coats with relatively low pigment contents.

The measurement of ultimate adhesive strength can often be a difficult process and interpretation of results can be subjective. Excellent adhesion does not necessarily mean good performance, nor does relatively poor adhesion necessarily mean poor performance.

Although the adhesion of coatings applied to aged / cured coatings may be deemed satisfactory for the specified end use, actual numerical values obtained for adhesion may be less than for coatings applied at minimum overcoating intervals. For information on individual products or coating schemes, consult AkzoNobel.

Definitions and Abbreviations

Part 3 of 3

FLASH POINT	Measured as the minimum temperature to which a product confined in a Setaflash closed cup must be heated for the vapours emitted to ignite momentarily in the presence of a flame. (ISO 3679:2004).
PRODUCT WEIGHT	<p>The weight of coating per unit of volume; for example, if a coating has a product weight of 1.5 kg/l this simply means that one litre of the coating will weigh 1.5 kg. It follows that products containing large pigment loads or dense metallic pigments will have a greater product weight.</p> <p>Product weight can be calculated from the mixed formulation or measured experimentally. The most widely used experimental method is ISO 2811-4:1997.</p>
VOLATILE ORGANIC CONTENT (VOC)	<p>Volatile Organic Content (VOC) is the weight of organic solvent per litre or kilogram of paint.</p> <p>Legislative requirements differ from country to country and from region to region and are constantly being reviewed. It is recommended that users check with local agencies for details of current VOC regulations to ensure compliance with any local legislative requirements when proposing the use of any coating.</p> <p>Values typically quoted for VOC on the product data sheets are as follows:</p> <ul style="list-style-type: none">• USA - EPA Federal Reference Method 24 (laboratory determination, given in g/l (or lb/gal)) The Environmental Protection Agency (EPA) published procedures for demonstration of compliance with VOC limits under Federal Reference Method 24 "The Determination of Volatile Matter Content, Density, Volume Solids and Weight Solids of Surface Coatings". This method was originally published in the Federal register in October 1980, and coded 40 CFR, Part 60, Appendix A, and amended in 1992 to incorporate instructions for dealing with multi-component systems, and a procedure for the quantitative determination of VOC-exempt solvent.• Solvent Emissions Directive (SED Council Directive 1999/13/EC) (calculation, given in g/kg) This is European legislation aimed at limiting the level of VOCs released to the atmosphere. The figures quoted on product data sheets are calculated from products' mixed formulations rather than practically determined.• UK-PG6/23 (04), Appendix 3 (laboratory determination, given in g/l) This method may be given for established products but has now been superseded by the SED.
MIX RATIO	The proportions in which multi-pack products are mixed. These can be given by volume or by weight. For example, a two-pack product with a mix ratio of 2:1 by volume would imply 2 litres of Part A should be mixed with 1 litre of Part B.
WORKING POT LIFE	<p>The maximum time during which a product supplied as separate components should be used after being mixed together at the specified temperature (ISO 9514:2005).</p> <p>The values quoted have been obtained from a combination of laboratory tests and application trials and refer to the time periods under which satisfactory coating performance will be achieved.</p> <p>Application of any product after the working pot life has been exceeded will lead to inferior product performance and potential loss of application equipment. For these reasons it must not be attempted, even if the material in question appears liquid in the can.</p>
SHIPPING WEIGHT	The shipping weights quoted are typical values and refer to the total weight of the product supplied (fill weight) plus the weight of the can and will vary according to the specific colour. These weights are quoted for individual components, and do not take into account any additional packaging weight attributable to cartons, etc. Factory supplied material will show differences to the figures quoted on the product Technical Data Sheet.
SHELF LIFE	<p>The shelf life quoted on the data sheets is generally a conservative value, and it is probable that the coating can be applied without any deterioration in performance after this period has elapsed. However, storage conditions can affect shelf life and this must be taken into consideration. For example, prolonged storage at extreme temperatures (outside the range 4 – 40°C (39 – 104°F)) can result in deterioration of application and performance properties. Water borne products must always be protected from freezing and should be stored at 4 – 30°C (39 – 86°F).</p> <p>It is recommended that the condition of the material is checked before any large scale application is undertaken using materials beyond the quoted shelf life. It is also advisable after long periods of storage to ensure that the containers are still sound.</p>

Paint Application

Part 1 of 4

Introduction

The object in applying a coating is to provide a film which will give protection and/or decoration to the surface being painted. The success of any paint application will be governed by a number of parameters, including:

- Surface preparation
- Film thickness
- Methods of application
- Conditions during application

These are discussed below.

Surface Preparation

The importance of surface preparation to the success of a coating system cannot be over emphasised. For details on surface preparation please refer to International Protective Coatings' documents *Surface Preparation: Metallic Surfaces* and *Surface Preparation: Concrete and Masonry*. These are available at www.international-pc.com.

Film Thickness

An adequate film thickness is essential for the success of any coating system. Under-application will generally result in premature failure. However, the old adage of "the more paint, the better" can be equally dangerous. The gross over-application of modern high technology coatings can lead either to solvent entrapment and subsequent loss of adhesion, or to splitting of primer coats. With the majority of coatings, the limits of acceptable dry film thickness allow for reasonable practical variation, but the specified film thickness should always be the target during application.

The actual dry film thickness recommended for a particular surface will depend on the type of coating system being used and the nature of the surface. Recommended dry film thicknesses for individual products are given on the Product Data Sheets.

Dry Film Thickness Measurement

If a coating is applied to a steel substrate, previously blast cleaned with abrasive grit or shot, the measurement of its dry film thickness is more complicated than that of a coating applied to a smooth steel substrate. The measurement results are influenced by the profile of the abrasive blasted surfaces which changes from point to point, the construction of the measuring equipment, (e.g. size of the probe) and dry film thicknesses to be measured. Some variations exist in methods of DFT measurement; DFT gauges can be calibrated on smooth or blasted steel panels and a correction factor for surface profile may or may not be considered. ISO 2808:2007, ISO 19840:2004 and SSPC-PA2 are accepted standards for measuring DFT.

The DFT is typically measured using a non-destructive magnetic gauge, which will give a value measured from the surface of the coating to the *magnetic plane* within the surface profile. The magnetic plane is the theoretical point within the surface profile that the DFT gauge sees as being the average position of the substrate.

When thin films are being applied care should be taken to consider the surface profile whereby some of the coating is being used to fill in the profile. For blast primers and coatings of less than 25 microns, measurement over the blasted surfaces is not meaningful.

Paint Application

Part 2 of 4

Methods of Application

The method of application is largely dependent on the type of coating selected. The most widely used methods of applying protective coatings are brush, roller, conventional (air) spray, conventional (pressure pot) spray and airless spray. The advantages and disadvantages of these methods are briefly discussed below. Other, less widely used methods include trowel, putty knife.

Brush Application

Brush application should always be undertaken using an appropriately sized, good quality synthetic or natural fibre brush compatible with the product being applied. This application technique is relatively slow and is generally used for coating small areas with decorative paints and for surface tolerant primers, where good penetration of rusty steel substrates is required. It is particularly suitable for the application of stripe coats and for coating complex areas where the use of spray methods would lead to considerable losses due to overspray and associated dry spray problems.

Note that most high build coatings are designed for application by airless spray; high film build will generally not be achieved by brush application. In general, twice as many coats will have to be applied by brush to achieve a similar build when compared to airless spray.

Brush application requires considerable care when applying non-convertible coatings over one another, e.g. chlorinated rubber over chlorinated rubber, or vinyl on top of vinyl. In these cases, the solvents in the wet coat readily redissolve the previously dry bottom coat. Even a mild degree of the brushing out normally given to topcoats will cause pick-up of the previous coat and result in a very poor finish. Even, light strokes should be used in these circumstances, covering a particular area with one or two brush strokes, and on no account working the bristles into the previous coat.

Roller Application

Roller application is faster than brush on large, even surfaces and can be used for the application of most decorative paints. However, control of film thickness is not easily achieved. As with brush, high film build will generally not be attained. Care must be taken to choose the correct roller pile length, depending on the type of paint and degree of roughness of the surface.

Typically, phenolic core rollers should be used, fitted with a smooth to medium pile roller cover and the roller cover should be pre-washed to remove any loose fibres prior to use.

Air Spray (Conventional)

This is a widely accepted, rapid method of coating application in which paint is atomised by a low pressure air stream. Conventional air spray equipment is relatively simple and inexpensive, but it is essential to use the correct combination of air volume, air pressure and fluid flow to give good atomisation and a paint film free from defects.

If conventional spray application is not controlled correctly, large losses of paint can result from overspray and rebound from the surface, in addition to problems such as poor flow, sagging and pinholing. The major disadvantage of conventional air spray is that high build coatings can generally not be applied by this method, as most paints have to be thinned to a suitable viscosity for satisfactory atomisation, and so lose their high build properties.

Paint Application

Part 3 of 4

Air Spray (Pressure Pot)

Pressure feed tanks or *pressure pots* are commonly used in association with low pressure air stream (conventional) spray guns, to provide a means of delivering paint at a regulated pressure from a tank, through a fluid hose to a spray gun.

The equipment works as follows: A length of air hose from the compressed air supply is connected to an air pressure regulator on the tank lid. Some air bleeds through the regulator at an adjusted pressure into the tank but most of the air passes the regulator and reaches the spray gun through a second length of air hose to atomise the paint as it is sprayed. The air which has entered the tank forces paint from it to the gun through a length of fluid hose. Paint in the tank can be prevented from settling by means of an agitator driven by hand or by a compressed air motor.

Air spray (pressure pot) is recommended in cases where large quantities of paint are to be applied, and their use instead of a suction or gravity feed cup attached to the gun significantly reduces waste time in constant refilling. This also enables the gun to be turned to any angle to coat objects effectively without spilling paint. Pressure feed tanks of up to 20 litres (5 US gallon) capacity can be used and allow ease of movement around the workplace.

Airless Spray

Here atomisation is achieved by hydraulic pressure forcing the paint through specially designed nozzles or tips. No air is mixed with the paint. The required hydraulic pressure is usually generated by an air powered pump having a high ratio of fluid pressure to air input pressure. Pumps with ratios between 20:1 and 60:1 are available, with perhaps the most common being around 45:1.

The chief advantages of airless spray are:

- High build coatings can be applied without thinning
- Very rapid application is possible, giving an economic advantage
- Compared to conventional spray, overspray and bounce-back are reduced, leading to reduced losses of material and lower fume hazards.

The tips through which the paint is forced to achieve atomisation are precisely constructed from tungsten carbide. The atomised fan is produced by a slot ground onto the face of the orifice. Various orifice sizes together with different slots angles are available. The choice of tip is governed by the fluid pressure required to give atomisation coupled with the orifice size needed to give the correct fluid delivery rate. The fluid delivery rate controls the film thickness applied.

Different slot angles produce spray fans of different widths. The selection of a particular fan width depends on the shape and size of the structure to be painted. Choice of fan width is also related to orifice size - for the same orifice size, the paint applied per unit area will be less, the wider the spray fan.

Airless spray equipment normally operates at fluid line pressures up to 352kg/cm² (5,000 p.s.i.), and should always be used in accordance with the manufacturer's operating instructions and safety precautions.

Generally tips with an orifice size 0.23-0.33mm (9-13 thou) are suitable for coatings to be applied at approximately 50 microns (2 mils) wet film thickness. Tip sizes from 0.33-0.48mm (13-19 thou) are suitable for wet films of 100-200 microns (4-8 mils) and 0.48-0.79mm (19-31 thou) for 200 microns (8 mils) and above. Heavy duty mastics which are applied at very high film thicknesses may need tips with orifices as large as 1.02-1.52mm (40-60 thou).

There are several designs of tip available, the choice of which depends upon the finish required, the ease of application and ease of clearing blockages from the tips. With some products, the decorative effect achieved with airless spray is not as good as can be achieved by conventional spray. However, airless spray application is now widely accepted as a convenient method of applying high performance protective coatings.

Paint Application

Part 4 of 4

Conditions during Application

When applying protective coatings, the most important factors to consider are the condition of the substrate, the surface temperature, and the atmospheric conditions at the time of painting.

Paint application should only be carried out when good atmospheric conditions and clement weather prevail.

Painting should not be undertaken:

- when the air temperature falls below the lower drying or curing limit of the coating
- during fog or mist conditions or when rain or snow is imminent
- when the surface to be painted is wet with condensation or when condensation can occur during the initial drying period of the paint

During the night steel temperatures fall. They rise again during the day but there is always a lag in movement of steel temperature compared to the atmospheric condition, so condensation on the steel surface is possible. Condensation will occur if the steel temperature is below the dew point of the atmosphere.

Borderline Conditions

Bad weather is a familiar problem to those using protective coatings. Relative humidity itself rarely creates a problem. Most paints will tolerate high humidity but humidity should not be permitted to lead to condensation on the surface being painted. In order to determine whether or not a surface is wet, the steel temperature should be measured using a surface temperature thermometer and the dew point calculated after measurement of humidity with a hygrometer. Paint application should not take place when steel temperature is less than 3°C (5°F) above the dew point.

Paint should not be applied when surfaces are affected by rain or ice. Some two pack paints (certain traditional two component epoxy coatings for example) should not be applied at low temperatures as curing may be retarded.

Extreme Conditions

Generally, “*extreme conditions*” refers to ambient temperatures below 4°C (39°F) or above 40°C (104°F).

Below 4°C (39°F) the curing of coatings such as traditional two component epoxies slows down dramatically and for some paints, curing stops altogether. Water-borne paints must not be stored or applied at temperatures below 4°C (39°F) as application and performance properties will be adversely affected. Other protective coatings are not so severely affected. Chlorinated rubbers and vinyls are quite suitable for use at temperatures below 0°C (32°F) provided that the surface is clean and free from ice or frost. Some other coatings may also be applied at such low temperatures although curing will be severely retarded.

At the other extreme of 40°C (104°F) and above, the drying and curing of paints is rather rapid and care should be taken to avoid dry spray. This is caused by the too-rapid loss of solvent from paint droplets between the spray nozzle and the surface. It can be avoided by:

- Keeping the spray gun at the minimum suitable distance from the work piece, spraying consistently at 90° to the surface being painted;
- Adding thinners, if necessary, up to a maximum of 5% by volume.

In such conditions, techniques must be adapted this way to prevent defects such as voids, pinholes, bubbles and poor coverage due to the over rapid evaporation of solvent. However, provided that good standards of workmanship are maintained, it is normally possible to satisfactorily apply most International Protective Coatings products on to steel substrates up to 65°C (149°F).

Surface Preparation: Metallic Surfaces

Part 1 of 7

Introduction

Proper surface preparation is essential for the success of any protective coating scheme. The importance of removing oil, grease, old coatings and surface contaminants (such as mill scale and rust on steel and zinc salts on galvanised surfaces) cannot be over emphasised.

The performance of any paint coating is directly dependent upon the correct and thorough preparation of the surface prior to coating. Even the most expensive and technologically advanced coating system will fail if the surface preparation is incorrect or incomplete.

Steel: Surface Evaluation

The performance of protective coatings applied to steel is significantly affected by the condition of the substrate immediately prior to painting. The principal factors affecting performance are:

- surface contamination including salts, oils, grease, drilling and cutting compounds
- rust and mill scale
- surface profile

The main objectives of surface preparation are to ensure that all contamination is removed, a surface profile created that allows satisfactory adhesion of the coating to be applied and to reduce the possibility of corrosion initiating from the presence of any surface contaminants. Recommended procedures are outlined in International Standard ISO 8504:2000 (E) and SSPC-SP Specifications.

Surface Contamination

It is essential to remove all soluble salts, oil, grease, drilling and cutting compounds and other surface contaminants prior to further surface preparation or painting of the steel. Perhaps the most common method is by solvent washing, followed by wiping dry with clean rags. The wiping is critical, because if this is not carried out thoroughly the result of solvent washing will simply be to spread the contamination over a wider area. Rags should be changed frequently. Proprietary emulsions, degreasing compounds and steam cleaning are also commonly used. Recommended procedures are described in International Standard ISO 8504:2000 (E) and SSPC-SP1.

Surface Imperfections

Imperfections on the substrate should be rectified prior to coating. Such corrections form part of the surface preparation process that should always be carried out before coating application.

Mill scale: A layer of ferric oxide formed on the surface of steel during hot rolling. Adherent mill scale should be removed by abrasive blasting or power tool cleaning to SSPC-SP11 or SSPC-SP15. Hand and power tool methods can be effective on loosely adherent mill scale.

Existing coatings: Removal by abrasive blasting is most effective; hand and power tool cleaning methods are also possible but much more labour intensive and best suited to small areas.

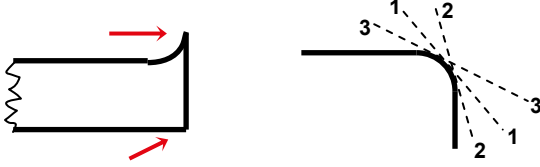
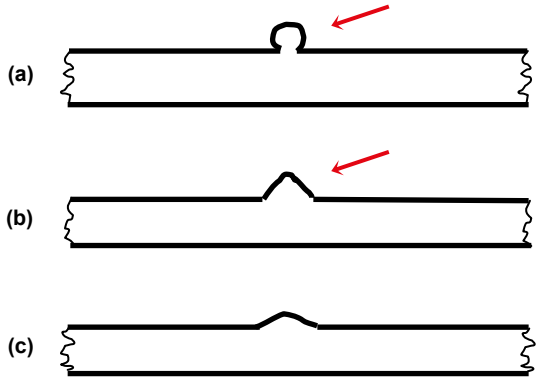
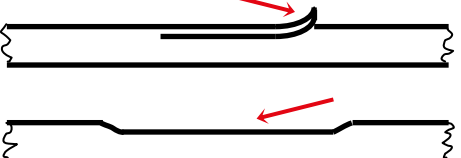
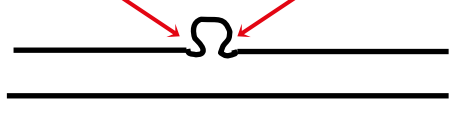

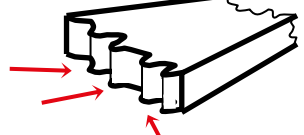
Rust: Should ideally be removed by abrasive blasting prior to coating but the extent of removal required will depend on the coating system to be applied. Hand and power tool methods are also possible but again, are more labour intensive and best suited to small areas.

If allowed to remain, loosely adhering mill scale, paint or rust can cause delamination of the coating from the substrate.

Surface Preparation: Metallic Surfaces

Part 2 of 7

Welds, cut edges and surface imperfections: Preparation grades are described in ISO 8501-3. International Protective Coatings recommends the following methods and minimum levels of preparation on any new steelwork:

ITEM	PROBLEM / SOLUTION	
Sharp Edge	Edges should be treated to a rounded radius of minimum 2mm, or subjected to three pass grinding or equivalent.	
Weld Spatter	<ol style="list-style-type: none"> 1. Remove spatter observed before blasting by grinder, chipping hammer etc. 2. For spatter observed after blasting: <ol style="list-style-type: none"> a) Remove with chipping hammer /scraper etc. b) Where spatter is sharp, use disc sander or grinder until obtuse c) Obtuse spatter – no treatment required 	
Plate Lamination	Any lamination to be removed by grinder or disc sander	
Undercut	Where undercut is to a depth exceeding 1mm and a width smaller than the depth, repair by welding or grinding may be necessary	
Manual Weld	For welding bead with surface irregularity or with excessive sharp edges, remove by disc sander or grinder	
Gas Cut Surface	For surfaces of excessive irregularity, remove by disc sander or grinder	

Surface Preparation: Metallic Surfaces

Part 3 of 7

Steel: Surface Preparation Methods

Some of the various methods of surface preparation of steel are briefly described below. For more explicit details and recommendations please refer to full specifications, such as:

- International Standards ISO 8501-1:2007(E) and ISO 8501-2:1994. Preparation of steel substrate before application of paints and related products - Visual assessment of surface cleanliness.
- International Standard ISO 8504:2000 (E). Preparation of steel substrates before application of paints and related products - Surface preparation methods.
- The Society for Protective Coatings (SSPC), Pittsburg, PA, USA. Full range of surface preparation standards, including visual standards to accompany written ones.
- Swedish Standard SIS 05 59 00 (1967 - Pictorial Surface Preparation Standards for Painting Steel Surfaces).
- Shipbuilding Research Association of Japan - Standard for the preparation of steel surface prior to painting ("JSRA" Standard).
- International Protective Coatings Hydroblasting Standards.
- International Protective Coatings Slurry Blasting Standards.
- International Protective Coatings Abrasive Sweep Blasting Standards.

Hand Tool Cleaning

Loosely adhering mill scale, rust and old paint coatings may be removed from steel by hand wire brushing, sanding, scraping and chipping. However, these methods are incomplete and always leave a layer of tightly adhering rust on the steel surface. Methods are described in SSPC-SP2, Hand Tool Cleaning and typically the level of preparation should be to ISO 8501-1:2007 grade St2-B, C or D.

Power Tool Cleaning

Generally power tool cleaning is more effective and less laborious than hand tool cleaning for the removal of loosely adhering mill scale, paint and rust. Power wire brushes, grinders, sanders and impact tools such as needle guns are all commonly used. Care should be taken, particularly with power wire brushes, not to polish the metal surface as this will reduce the key for adhesion of the subsequent paint coating. Mechanical bristle blasting is also an effective method and can produce a surface profile of up to 75µm (3 mils) in areas where blast cleaning is not feasible.

Methods are described in SSPC-SP3, Power Tool Cleaning, SSPC-SP11, Power Tool Cleaning to Bare Metal and SSPC-SP15, Commercial Grade Power Tool Cleaning and typically the level of preparation should be to ISO 8501-1:2007 grade St3-B, C or D. SSPC-SP11 and SSPC-SP15 describe a degree of surface profile which can be achieved by power tool cleaning.

Abrasive Blast Cleaning

This is by far the most effective method for removal of mill scale, rust and old coatings using abrasives such as sand, grit or shot under high pressure.

The preparation grade suitable for a particular coating specification depends on a number of factors, the most important of which is the type of coating system selected.

The primary standard used in International Protective Coatings' product data sheets is ISO 8501-1:2007(E), preparation of steel substrate before application of paints and related products - visual assessment of surface cleanliness. This standard represents a slight extension of the Swedish Standard (SIS 05 59 00), which was developed by the Swedish Corrosion Institute in co-operation with the American Society for Testing & Materials (ASTM) and the Society for Protective Coatings (SSPC), USA, and was used on a world-wide scale up until the introduction of ISO 8501-1.

Surface Preparation: Metallic Surfaces

Part 4 of 7

Where appropriate, the nearest equivalent SSPC-SP specification has been quoted on individual product data sheets. **It is recognised that the SSPC and ISO standards are not identical** and as a consequence data sheets may show grade Sa2½ (ISO 8501-1:2007) as an alternative to SSPC-SP6, Commercial Blast Cleaning or to SSPC-SP10, Near White Blast Cleaning. The selection of these blast cleaning grades will have been assessed using a number of factors including coating type, performance expectation and in-service conditions.

As a general principle, where products are recommended for immersion or aggressive atmospheric conditions the blasting standard required will be to Sa2½ (ISO 8501-1:2007) or SSPC-SP10; when products are recommended for general atmospheric exposure the blasting standard required will be Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Prior to blasting, steelwork should be degreased and all weld spatter removed. If salt, grease or oil is present on the surface it will appear to be removed by the blasting process, but this is not the case. Although not visible, the contamination will still be present as a thin layer and will affect the adhesion of subsequent coatings. Weld seams, metal slivers and sharp edges revealed by the blasting process should be ground down; paint coatings tend to run away from sharp edges, resulting in thin coatings and reduced protection. Weld spatter is almost impossible to coat evenly and is often loosely adherent; these factors mean it is a common cause of premature coating failure.

The surface profile obtained during blasting is important and will depend on the abrasive used, the air pressure and the technique of blasting. Too low a profile may not provide a sufficient key for satisfactory adhesion of the coating, while too high a profile may result in uneven coverage of high, sharp peaks possibly leading to premature coating failure, particularly for thin film coatings such as blast primers. The following table gives a brief guide to typical roughness profiles obtained using various types of abrasive.

Type of Abrasive	Mesh Size	Max. Height of Profile
Very fine sand	80	37 microns (1.5 mils)
Coarse sand	12	70 microns (2.8 mils)
Iron shot	14	90 microns (3.6 mils)
Typical non metallic "copper slag" 1.5-2.0mm grain size	-	75-100 microns (3-4 mils)
Iron grit No. G16	12	200 microns (8.0 mils)

Wet Abrasive Blasting / Slurry Blasting

Wet abrasive blasting uses a slurry of water and abrasive rather than dry abrasive alone. This has an advantage in that the hazards of dust and associated health problems are largely overcome.

A further important advantage is that when wet blasting old, well rusted surfaces, many of the soluble corrosion products in the pits of the steel will be washed out, which will greatly improve the performance of the applied coating system. However, a disadvantage of this technique is that the cleaned steel begins to rust rapidly after blasting. When flash rusting (light oxidation of the steel following blasting) is considered too heavy for coating application it may be removed or reduced by brushing with a hard bristle brush or by washing down with high pressure fresh water. High pressure washing will cause the area to re-rust, but it is possible to reduce the degree of flash rusting from heavy to light using this method.

Proprietary inhibitors can be added to the blast water but these are not recommended by International Protective Coatings. The use of a moisture tolerant primer, which can be applied to wet blasted steel while it is still damp, may be considered.

Where wet blasted surfaces have been allowed to corrode, they should be mechanically cleaned or preferably sweep blasted to remove the corrosion prior to painting.

Surface Preparation: Metallic Surfaces

Part 5 of 7

Hydroblasting

Hydroblasting is a technique for cleaning surfaces that relies entirely on the energy of water striking a surface to achieve its cleaning effect. Abrasives are NOT used in hydroblasting systems. Consequently the problems caused by dust pollution and by the disposal of spent abrasives are eliminated.

The terms hydroblasting, hydrojetting and water jetting essentially mean the same thing, with all being used to describe the same process. There can be confusion however over the difference between simple water washing and hydroblasting. To clarify the situation, International Protective Coatings has adopted the following commonly accepted definitions:

Low Pressure Water Washing:

Operates at pressures less than 68 bar (1,000 p.s.i.)

High Pressure Water Washing:

Operates at pressures between 68-680 bar (1,000-10,000 p.s.i.).

High Pressure Hydroblasting:

Operates at pressures less than 680-1,700 bar (10,000-25,000 p.s.i.)

Ultra High Pressure Hydroblasting:

Operates at pressures above 1,700 bar (25,000 p.s.i.) with most machines operating in the 2,000-2,500 bar range (30,000-36,000 p.s.i.)

Methods are described in SSPC-SP12, Surface Preparation and Cleaning of Metals by Waterjetting Prior to Recoating. SSPC-Vis 4, Guide and Reference Photographs for Steel Surfaces Prepared by Waterjetting can be used alongside SSPC-SP12. The International Protective Coatings Hydroblasting Standards have been prepared using ultra high pressure hydroblasting equipment. These standards are also applicable to surfaces produced by a whole range of hydroblasting pressures, providing the equipment used is capable of cleaning to the visual standard depicted. **Note that hydroblasting will not produce a surface profile.**

The steel surfaces produced by hydroblasting do NOT look the same as those produced by dry abrasive blasting or slurry blasting; water on its own cannot cut or deform steel in the same way as abrasives, so hydroblasted surfaces therefore tend to look dull, even before they flash rust. Flash rusting, which occurs as hydroblasted steel dries off, will quickly change this initial appearance.

As with wet abrasive / slurry blasting, heavy flash rusting may be removed or reduced by brushing with a hard bristle brush or by washing down with high pressure fresh water. High pressure washing is the preferred method and can reduce the degree of flash rusting from heavy to light. Hand wire or bristle brushing to remove heavy flash rusting may be acceptable for small areas, but will generally produce an inadequate surface. Mechanical rotary wire brushing can however produce acceptable surfaces for large areas.

Flash rusting can be prevented by the use of water soluble chemical corrosion inhibitors, however these are not recommended by International Protective Coatings. Such inhibitors must be thoroughly washed off with fresh water as they can leave a crystalline layer on the steel surface as the water evaporates; this can lead to loss of adhesion and osmotic blistering in coatings subsequently applied.

Stainless Steel: Surface Evaluation

As with carbon steel substrates, stainless steel should be dry and free from contaminants such as rust, scale, oil and grease and should have a defined surface profile prior to coating.

Surface Contamination

It is essential to remove all soluble salts, oil, grease, drilling and cutting compounds and other surface contaminants prior to further surface preparation or painting of the stainless steel. As with carbon steel, this can be done by solvent washing. Chloride solutions should **not** be used for cleaning as these can promote pitting corrosion of the stainless steel.

Surface Preparation: Metallic Surfaces

Part 6 of 7

Surface Imperfections

Scale: May be removed by pickling or by mechanical abrasion (hand or power tool or abrasive blasting).

Rust staining: Caused by contact with carbon steel or iron particles, rust staining should ideally be removed before coating. Light staining can be removed with Interplus 614; heavier staining may require pickling or abrading.

Heat tint: Discolouration indicating a thickening of the oxide layer on the surface of the stainless steel. This is caused by heat from activities such as welding and should ideally be treated prior to coating; when allowed to remain it is possible that the corrosion resistance of the substrate can be adversely affected. For severe heat tint grinding or abrading may be necessary; in mild cases pickling may be sufficient.

Stainless Steel: Surface Preparation Methods

Hand and Power Tool Cleaning

Suitable for rust staining, loosely adherent scale and existing coatings. Power tool cleaning can also be used to treat heat tint. Abrasive paper, wire brushes etc must be iron free and it is recommended that where possible tools should not have previously been used to prepare carbon steel to avoid the possibility of iron particles being embedded in the substrate. Hand and power tool preparation is unlikely to produce a sufficient profile for coating application.

Abrasive Blast Cleaning

This is by far the most effective method for removal of scale, rust and old coatings. **Non-metallic** abrasives, for example aluminium oxide or garnet, must be used; abrasives such as iron grit or shot are unlikely to provide a satisfactory profile and can leave traces of iron on the surface of the stainless steel and lead to staining. A surface profile of 50µm (2 mils) can typically be achieved using hard non-metallic abrasives such as aluminium oxide.

Care should be taken to support thin sections of stainless steel plate to avoid distortion of the substrate during blasting.

Hydroblasting

As with carbon steel, hydroblasting will not produce a surface profile. In the case of stainless steel hydroblasting is typically used to remove scale and existing coatings. It can also be used following pickling treatment of weld tint to remove traces of pickling products and detached metal. Rinsings must be carefully disposed of in accordance with local environmental legislation.

Pickling and Passivation

Pickling treatments can be used to remove scale and to correct heat tint and as long as the substrate is properly clean and free from any other contamination then it will usually be left passivated once the pickling product has been removed. Again, care must be taken to properly dispose of any waste from pickling.

Passive surfaces will require mechanical abrasion (preferably abrasive blasting) in order to ensure a sufficient profile for adhesion of the subsequent coating.

Surface Preparation: Metallic Surfaces

Part 7 of 7

Non-Ferrous Metal: Surface Evaluation

The principal factors affecting performance are:

- surface contamination including salts, oils, grease, drilling and cutting compounds
- surface profile

The main objectives of surface preparation are to ensure that all contamination is removed, a surface profile created that allows satisfactory adhesion of the coating to be applied and to reduce the possibility of corrosion initiating from the presence of any surface contaminants.

Non-Ferrous Metal: Surface Preparation Methods

Aluminium

The surface should be clean, dry and grease-free. If any corrosion salts are present they should be removed by lightly abrading the surface. This can be achieved by wire brushing or by lightly blasting with fine non-metallic abrasive. Before painting, apply one thin coat of a proprietary acid etch primer to provide a key for adhesion of further coats.

Galvanised Steel

The surface should be clean, dry and grease free. Degreasing of most galvanised surfaces requires some effort to obtain a clean surface. Any white zinc corrosion products should be removed by high pressure fresh water washing, or fresh water washing with scrubbing. A surface suitable for coating will ideally be prepared by sweep blasting but it is still advisable to fresh water wash to remove soluble zinc salts. Many coatings based on non-saponifiable polymers can be applied directly to galvanised surfaces prepared in this way.

When sweep blasting is not possible, then an acid etch solution, mordant solution or etch primer should be used to provide a key for the adhesion of further paint coatings. Details of coatings that can be applied to sweep blasted galvanised steel and of suitable etch solutions and primers can be obtained from International Protective Coatings.

When steel has been treated with a passivating treatment immediately after galvanising, this must either be allowed to weather off over a period of several months' exterior exposure or be abraded before application of a coating. In general etch treatments have no effect on freshly passivated galvanised materials.

Other Non-Ferrous Metals

The surface should be clean, dry and grease free. Any corrosion salts should be removed by light abrasion and water washing. The cleaned surface should be abraded or very lightly abrasive blasted using low pressure and non-metallic abrasive and then primed with a coat of etch primer prior to painting. For lead, if the surface is thoroughly abraded, the etch primer may be omitted.

Theoretical and Practical Coverage

Part 1 of 4

Introduction

Estimating paint coverage is a key factor in the costings of both owners and contractors.

On site, practical coverage is a function of many factors, with losses due to surface condition, paint distribution, application procedure and wastage being the major factors in determining the volume of paint required for a given specification. At the initial costing stage, however, paint usage is calculated from the quoted volume solids.

The variety of methods used by different manufacturers to calculate or determine volume solids can lead to confusion and misunderstanding, particularly when comparisons between paint systems are being made. These notes are intended to guide users and specifiers both in the practical assessment of paint losses, and in their theoretical calculations.

The technique and approach described have been adopted by International Protective Coatings throughout its worldwide organisation.

Volume Solids

The volume solids of a coating is the ratio of the volume of its non volatile components to its initial wet film volume.

Traditionally, this figure was calculated from the paint formulation but, since this took no account of factors such as pigment packing, solvent retention, or film contraction, the value bore little relation to that obtained in practice. Also, since these factors vary in importance between paint types, the calculated volume solids can result in an underestimation of coverage on some generic types of paint and an overestimation on others.

Measurement of Volume Solids in the Laboratory

The volume solids figure given in the data sheets is the percentage of the final film obtained from a given wet film thickness under specified application method and conditions. These figures have been determined under laboratory conditions using (unless otherwise specified) the test method described in the standard ISO 3233 – Determination of percentage volume of non-volatile matter by measuring the density of a dried coating.

Special Situations – Inorganic Zinc Paint

These paints can be so highly pigmented that the dry film contains voids. An alternative method of measuring volume solids has therefore been used to circumvent the variable void content of the dry film and thus provide a reliable figure. In general a modification of ASTM D-2697 gives the most meaningful results and is used for International Protective Coatings' data sheets.

Theoretical Coverage Determination from Volume Solids

The theoretical coverage can be determined from the two formulae below:

Formula 1 (Metric)

$$\frac{\text{volume solids (\%)} \times 10}{\text{measured dft (in microns)}} = \text{Theoretical Coverage (m}^2\text{/ltr)}$$

Formula 2 (US Measures)

$$\frac{\text{volume solids (\%)} \times 16.04}{\text{measured dft (in mils)}} = \text{Theoretical Coverage (sq.ft/US gallon)}$$

Theoretical and Practical Coverage

Part 2 of 4

Conversion from Theoretical to Practical Coverage

Introduction

Estimating accurately the quantity of paint required for a particular job is complicated, since the theoretical coverage takes no account of the variable losses involved in converting paint in the can to a film on the chosen surfaces. Experienced contractors, with their knowledge of local conditions and their workforce etc. are best able to produce accurate estimates. This document is intended to supplement this experience by highlighting the major areas of losses. Two types of loss are considered; *apparent losses* where the paint, though on the surface, does not contribute to the specified thickness, and *actual losses*, where the paint is lost or wasted. These losses are discussed in more detail below.

Apparent Losses

The Effect of Blast Profile

When paint is applied to an abrasive blasted surface, the paint thickness over the peaks on the surface is less than the thickness over the troughs. However, in general, it is the thickness over the peaks which is most important in relation to performance. Therefore, it can be considered that the paint which does not contribute to this thickness is *lost in the steel profile*. This is an *apparent loss*.

The surface profile produced by blasting and the corresponding apparent loss is proportional to the dimensions of the abrasive used; where blasting has been carried out using coarse grit, for instance, the allowance that must be made for paint lost in the profile is considerable. Conversely, where steel has been blasted by small round steel shot and shop primed, the surface roughness is less pronounced and so the loss is much lower.

Typical losses in dry paint film thickness for given blast profiles are suggested below:

Surface	Blast Profile	D.F.T. Loss
Steel prepared by wheelabrator using round steel shot, then shop primed	0-50 µm (0-2 mils)	10 µm (0.4 mils)
Fine open blasting (e.g. J Blast Super)	50-100 µm (2-4 mils)	35 µm (1.4 mils)
Coarse open blasting (e.g. J Blast A)	100-150 µm (4-6 mils)	60 µm (2.4 mils)
Old honeycomb pitted steel - reblasted	150-300 µm (6-12 mils)	125 µm (5 mils)

Note that for the shop primers and holding primers, which are applied at low film thickness, the concept of losses in the blast profile is not appropriate. These thin coatings are not normally considered to contribute to the total film thickness of the paint system.

Paint Distribution

This is the loss of paint resulting from over-application when a competent painter is attempting to achieve the minimum thickness specified with reasonable certainty. The extra paint used above that calculated from the theoretical spreading rate is very dependent on the method of application, i.e. brush, roller or spray, and also on the type of structure being painted. A simple shape with a high proportion of flat surfaces should not incur heavy losses but if there are stiffeners or open lattice work involved then obviously losses will be high.

Theoretical and Practical Coverage

Part 3 of 4

The following approximate over-applications are suggested as being appropriate:

Brush and Roller	Loss
Simple structures	5%
Complex structures	10-15% (including stripe coat)

Spray	Loss
Simple structures	20%
Complex structures	60% for single coat (inc. stripe coat)
	40% for two coats
	30% for three coats

Where open lattice work is sprayed, no realistic estimate can be made of paint distribution loss.

In those special cases where the specification calls for a minimum thickness at all measured points, then the distribution losses would be greater than those indicated above.

Actual Losses Application

There is a real loss of paint during the painting operation, e.g. paint which is lost inside spray application equipment, or which drips from a brush or roller during the transfer from the paint container to the surface to be painted. With care this can be disregarded as a significant contribution to the overall loss. The use of "man helps" to extend the painter's reach can increase this type of loss however, and in an extreme case could result in a 5% loss.

When application is by spray, losses are inevitable and their magnitude is dependent on the shape of the structure being painted, together with weather conditions. The following losses are common:

Environment	Loss
Well ventilated but confined space	5%
Outdoors in almost static air	5-10%
Outdoors in windy conditions	>20% (this figure can be exceptionally high if painting is attempted in unsuitably windy conditions)

Paint Wastage

Some paint wastage is inevitable; paint is spilt, a certain amount remains in discarded containers and in the case of two pack materials, mixed paint may be left beyond its pot life.

Summary of Losses

Paint losses are summarised as follows:

Apparent loss	Surface profile (effectively applies only to the first coat)
	Distribution
Actual loss	Application losses
	Wastage

Apparent losses should be added and actual losses compounded.

Theoretical and Practical Coverage

Part 4 of 4

Practical Coverage

Given the theoretical coverage and the preceding loss factors, it is possible to calculate a practical coverage. However, due to the extremely complex nature of the calculations, and variability of a number of external factors which include surface roughness, ambient climatic conditions, complexity of structure, access limitations and application methods, it is advised that these calculations are performed by professional estimators who have the appropriate knowledge and experience of the application of protective coatings under various site conditions.

Vinyl Ester

PRODUCT DESCRIPTION

Ceilcote 380 Primer is a catalysed vinyl ester primer. It provides excellent bonding and adhesion for various polyester and vinyl ester linings, coatings and flooring systems, as well as for Ceilcote Hybrid Polymer systems.

INTENDED USES

As a primer for vinyl ester schemes over both steel and concrete. Used as a crucial component in Ceilcrete, Mat Reinforced (MR) and Lining Systems.

PRACTICAL INFORMATION FOR CEILCOTE 380 PRIMER

Colour	Translucent purple
Gloss Level	Not applicable
Volume Solids	100% reactive
Typical Thickness	See Product Characteristics section for further details
Theoretical Coverage	10 m ² /litre at 75 microns d.f.t and 75% volume solids 401 sq.ft/US gallon at 3 mils d.f.t and 75% volume solids (see Page 3 Product Characteristics)
Practical Coverage	Allow appropriate loss factors. Coverage will vary depending on the condition of the substrate and environmental conditions. For practical coverage rates, please refer to the Application Guidelines.

Method of Application Airless spray, Brush, Roller, Trowel

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	90 minutes	5 hours	5 hours	4 weeks ¹
15°C (59°F)	60 minutes	4 hours	3 hours	4 weeks ¹
25°C (77°F)	45 minutes	90 minutes	2 hours	1 week ¹
35°C (95°F)	45 minutes	90 minutes	1 hour	3 days ¹

¹ When surface temperatures exceed 35°C (95°F) or are exposed to direct sunlight, overcoating should take place as soon as the coating may be walked on, in order to avoid intercoat adhesion issues.

Minimum overcoating intervals are indicative and overcoating may take place as soon as walk-on hardness is achieved.

REGULATORY DATA

Flash Point (Typical)	Part A 32°C (90°F); Part B 77°C (171°F); Mixed 32°C (90°F)	
Product Weight	1.04 kg/l (8.7 lb/gal)	
VOC	3.01 lb/gal (361 g/lit)	EPA Method 24
	229 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Vinyl Ester

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Steel Substrates

For immersion service or service in humid conditions or elevated temperatures, this product should be applied to surfaces which have been prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007), SSPC SP5 or NACE #1. For dry environments abrasive blast cleaning to Sa2½ (ISO 8501-1:2007), SSPC SP10 or NACE #2 will be suitable. A minimum surface profile of 75 microns (3 mils) is required.

Ceilcote 380 Primer must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Concrete Substrates

Concrete should be well cured prior to application of the flooring, lining or coating system. Refer to the Concrete Surface Preparation Guidelines for more information.

APPLICATION

Mixing	Ceilcote 380 Primer must always be mixed and applied in accordance with the detailed Application Guidelines for the subsequent system. The resin component of this material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the material has been mixed it must be used within the working pot life.			
	Do not mix more material than can be applied within the recommended pot life.			
Mix Ratio	50 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 40 minutes	15°C (59°F) 35 minutes	25°C (77°F) 30 minutes	35°C (95°F) 15 minutes
Airless Spray	Recommended	Tip Range 0.48-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 70 kg/cm ² (995 p.s.i.)		
Brush	Suitable			
Roller	Recommended	Use a short nap roller.		
Thinner	DO NOT THIN			
Cleaner	Ceilcote T-410 Solvent (or International GTA203)			
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with Ceilcote T410 or International GTA203. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
	Once units have been mixed, work should continue until all mixed material has been used.			
Clean Up	Clean all equipment immediately after use with T-410 Solvent. Frequency of cleaning will depend upon amount applied, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Vinyl Ester

PRODUCT CHARACTERISTICS

The detailed Application Guidelines for the relevant Ceilcote system should always be consulted prior to use.

Although Ceilcote 380 Primer is 100% reactive, depending upon the application conditions, the practical volume solids may be lower and International Protective Coatings suggest a value of 75% for estimating spreading rate.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Ensure adequate ventilation is provided throughout application and curing. Dehumidification (DH) air conditioning and/or heating equipment may be necessary to control environmental conditions.

For all application steps, the surface temperature, air temperature and material temperature should be between 10°C (50°F) and 43°C (110°F).

Where application is by airless spray, care should be taken to avoid excessive thickness. For optimum adhesion, the materials should then be back-rolled to ensure an intimate contact with the surface.

Typical Thickness

Primer: 50-125 microns (2-5mils) dry equivalent to 67-167 microns (2.7-6.7 mils) wet. For concrete, a theoretical coverage rate of 7.5m²/litre (305sq.ft/ US gallon) is suggested (depending on porosity of concrete). Film thicknesses on concrete are not relevant as the intention is only to seal the porosity, not apply a layer over the concrete.

Basecoat/Topcoat (Resin + Powder): 1500 microns (60 mils) dry equivalent to 1765 microns (71 mils) wet, with a theoretical usage of 1m²/litre (40sq.ft/US gallon) of resin to 2.5kgm² (2sq.ft/lb) S1 Powder.

Laminate (Resin saturated glass mat): 800 microns (32 mils) with a theoretical coverage of 1.34m²/ litre (50sq.ft/US gallon)

For concrete substrates where film integrity spark testing of lining and coating systems applied over Ceilcote 380 Primer is required, a conductive powder should be added. The type and quantity of powder per litre (and gallon) of mixed resin is as follows:

C-1 Powder 0.14kg/l (1.2lb/gal).

The powder must first be added and mixed into Part A resin prior to adding Part B.

Where the overcoating interval is exceeded, confirm recoatability by wiping with styrene monomer. If the surface becomes 'tacky', adhesion is acceptable. If not softened by styrene, the surface must be sweep blasted or mechanically abraded to provide a non-glossy, abraded surface. Primed surface must be dry and free of foreign matter at time of lining, coating or flooring application.

Consult International Protective Coatings for temperature limits for specific end use requirements.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Ceilcote 380 Primer is designed for application to correctly prepared substrates.

It is compatible with various Ceilcote coatings and linings; consult International Protective Coatings or further advice.

Vinyl Ester

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15 litre	14.71 litre	20 litre	0.29 litre	0.7 litre
	5 US gal	5 US gal	5 US gal	12.5 fl oz	1 US pint
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	15 litre	17.06 kg		0.39 kg	
	5 US gal	47.8 lb		1 lb	
STORAGE	Shelf Life	6 months minimum at 20°C (70°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 23/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Intumescent

PRODUCT DESCRIPTION

Chartek 7 is a high performance epoxy intumescent fire protection coating system.

The product is a high build, two pack material providing excellent durability and combined corrosion and fire protection.

Tested and certified by Lloyd's Register (LR) and Det Norske Veritas (DNV) for structural and divisional fire protection.

INTENDED USES

Suitable for the protection of steel, aluminium and other substrates from the effects of hydrocarbon pool and jet fires.

To preserve functional integrity for a specified period of time of structures, pipework, vessels and fire resistant divisions.

Primarily intended for use in high risk environments such as oil, gas, petrochemical and power generation industries.

PRACTICAL INFORMATION FOR CHARTEK 7

Colour	Medium Grey (Part A - Dark Grey: Part B - White)
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	Depends on protection required. Normally in the range of 4-20 mm (150-800 mils)
Theoretical Coverage	1 kg of Chartek 7 will provide 1 mm of fire protection to 1 m ² (based on plural component application)
Practical Coverage	Allow appropriate loss factors
Density	1000 kg/m ³ (62.427 lb/ft ³)- plural spray applied (ISO 1183:2004 Method A)
Method of Application	Two component heated plural spray unit, modified airless spray unit or trowel applied (see Application section)
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
15°C (59°F)	2 hours	12 hours	12 hours	*
25°C (77°F)	1 hour	6 hours	6 hours	*
40°C (104°F)	1 hour	4 hours	4 hours	*

* Consult International Protective Coatings

REGULATORY DATA

Flash Point (Typical) Part A >106°C (223°F); Part B >106°C (223°F); Mixed >106°C (223°F)

VOC 0.00 lb/gal (0 g/lt)
1 g/kg EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Intumescent

SURFACE PREPARATION

Surface preparation and application should be carried out in accordance with the advice given in International Protective Coatings' Chartek Application Guidelines.

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Abrasive Blast Cleaning

Chartek 7 should only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10.

Primers

Selected primers or priming systems must have completed the primer qualification procedure from International Protective Coatings, feature on the International Protective Coatings published qualified primers list and be applicable to the appropriate certification. The preferred primer shall be an epoxy polyamide (e.g. Intergard 251) at a thickness not exceeding 75 microns (3 mils). Alternatively, a two coat primer system, such as epoxy zinc (e.g. Interzinc 52) and tie coat (e.g. Intergard 269) may be used, and should not exceed 110 microns (4.5 mils) combined dry film thickness.

APPLICATION

Mixing	If applying Chartek 7 by modified single feed airless spray pump or trowel, it will first be necessary to thoroughly power mix a kit of Chartek 7. Individual components must have been stored for 24 hours at 21 - 27°C (70 - 80°F) and fully power agitated before mixing.	
Mix Ratio	Always mix full kits. (For trowel application refer to the Chartek Application Guidelines).	
Working Pot Life	15°C (59°F) 90 minutes	25°C (77°F) 50 minutes
	The above figures are for trowel application. Working pot life is not applicable for plural airless spray application as the product is only mixed at the spray gun, at the point of application. For pre-mix airless spray, working pot life will be reduced in relation to the above figures. Refer to the Chartek Application Guidelines.	
Plural Component Airless Spray	Recommended and preferred	Heated plural equipment approved by International Paint. No thinners required
Airless Spray	Recommended - Small areas only	Recommended use minimum 68:1 modified airless spray unit, as qualified by International Protective Coatings. Typically thinned by up to 5% solvent by volume
Trowel	Suitable - small areas only	Typically thinned by up to 5% solvent
Thinner	International GTA123	Only for pre-mix and trowel application - consult Application Guidelines
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Intumescent

PRODUCT CHARACTERISTICS

The following conditions shall apply (or be generated) throughout the application:

Minimum Air Temperature	10°C (50°F)
Maximum Humidity	85%
Surface Temperature	A minimum of 3°C (5°F) above dew point of surrounding air.
General	Surfaces must be clean, dry and free from contaminants immediately prior to coating.

Application

Chartek 7 should be spray applied to ensure total wetting of the substrate is achieved. Where this is not possible by spray alone, then the first coat should be thoroughly trowelled and rolled to achieve this. The best time to overcoat Chartek 7 with itself is 'wet on wet' or within 12 hours of application and before the coating has had any chance to become contaminated.

Mesh Application

If mesh reinforcement is required, International Paint's HK-1 carbon composite mesh should be installed in accordance with specific fire design and as detailed in the Chartek Application Guidelines. For mesh requirements seek specific advice from International Protective Coatings.

Specific fire scenarios, e.g. those containing a portion of the duration where jet fire is anticipated, may require specific meshing and coating thickness. Details need to be addressed on a project specific basis for the acceptance of the Certifying Authority, e.g. LR or DNV.

After Mesh Application (if applicable)

Continue to spray apply Chartek 7 to bring up to the required film thickness

Equipment

Only equipment qualified by International Protective Coatings shall be used as detailed in the Chartek Application Manual or by the International Protective Coatings Technical Service Representative.

Applicator Qualification

Only companies in receipt of Qualified Applicator status from International Protective Coatings shall be used for Chartek 7 application. Companies shall document that they comply with this requirement prior to work commencement.

The Chartek 7 application shall be conducted by the Applicator Company using employees trained in the proper application procedures. As a minimum, Supervisory and QA/QC personnel on site shall be in receipt of individual qualifications, having attended an International Protective Coatings Chartek Applicator Training School. This is a minimum requirement and shall be documented prior to work commencement.

Inspection & QA

This is the responsibility of the Applicator but as a minimum must conform to the procedures laid down in International Protective Coatings Chartek QC Manual

Technical Service

This is available from International Protective Coatings and should be co-ordinated to ensure attendance at job start up. The Applicator Company is responsible for ensuring International Protective Coatings is notified of start up date.

Alternative Surface Preparation

Under certain project specific circumstances, International Protective Coatings has developed procedures for wet blasting, ultra high pressure water blasting (hydroblasting) and power tool cleaning. Consult International Protective Coatings for specific advice.

Maximum Surface Operating Temperature

At service temperatures of between 80°-120°C (176°-248°F) a suitable thermal barrier, e.g. Intertherm 7050, should be used between the substrate and the Chartek 7.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Chartek 7 is normally applied over a suitably primed substrate. Please contact International Protective Coatings for confirmation of suitability of selected primer.

Generally Chartek 7 will be topcoated to meet owners' colour schemes and finish requirements. International Protective Coatings recommends the use of topcoats in all external applications.

The following topcoats are recommended for Chartek 7:

Interfine 629HS	Interthane 990
Interfine 878	Interthane 990HS
Interfine 979	

Epoxy Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the International Protective Coatings data manual, Chartek Application and Quality Manuals.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	14.2 kg (31.3 lb)	5.8 kg (12.8 lb)
50 kg (110.2 lb) kit	35.48 kg (78.2 lb)	14.52 kg (32.0 lb)

20 kg (44.1 lb) kit supplied as 1 drum Part A and 1 plastic pail Part B. Part A drum is partially filled to allow Part B to be added and pre-mixed prior to application by single leg spray or hand trowel application.
50 kg (110.2 lb) kit supplied as 2 full drums Part A and 1 full drum Part B. Suitable for use with plural component airless spray pumps.

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	16.0 kg (35.2 lb)	6.4 kg (14.1 lb)
50 kg (110.2 lb) kit	39.1 kg (86.0 lb)	16.3 kg (36.0 lb)

STORAGE

Shelf Life 1 year under normal temperature conditions. Should be stored indoors and out of direct sunlight. A temperature range of 1-30°C (34-86°F) must be maintained.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 19/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Intumescent

PRODUCT DESCRIPTION

Chartek 7E is a high performance epoxy intumescent fire protection coating system.

The product is a high build, two pack material providing excellent durability and combined corrosion and pool fire and jet fire protection with or without mesh.

Certified for structural fire protection by relevant classification societies.

INTENDED USES

Suitable for the protection of steel, aluminium and other substrates from the effects of hydrocarbon pool and jet fires.

To preserve functional integrity for a specified period of time of structures, pipework, vessels and fire resistant divisions.

Primarily intended for use in high risk environments such as oil, gas, petrochemical and power generation industries.

PRACTICAL INFORMATION FOR CHARTEK 7E

Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	Depends on protection required.
Theoretical Coverage	1 kg of Chartek 7E will provide 1 mm of fire protection to 1 m ² (based on plural component application)
Practical Coverage	Allow appropriate loss factors
Density	1000 kg/m ³ (62.427 lb/ft ³) plural spray applied (ISO 1183:2004 Method A)
Method of Application	Two component heated plural spray unit

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
15°C (59°F)	2 hours	16 hours	12 hours	*
25°C (77°F)	1 hour	10 hours	6 hours	*
40°C (104°F)	1 hour	4 hours	4 hours	*

* Consult International Protective Coatings

REGULATORY DATA

Flash Point (Typical) Part A >100°C; Part B >100°C; Mixed >100°C

VOC 0.09 lb/gal (11 g/lit)
1 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Intumescent

SURFACE PREPARATION

Surface preparation and application should be carried out in accordance with the advice given in International Protective Coatings' Chartek Application Guidelines.

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Abrasive Blast Cleaning

Chartek 7E should only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10.

Primers

Selected primers or priming systems must have completed the primer qualification procedure from International Protective Coatings, feature on the International Protective Coatings published qualified primers list and be applicable to the appropriate certification. The preferred primer shall be an epoxy polyamide (e.g. Intergard 251) at a thickness not exceeding 75 microns (3 mils). Alternatively, a two coat primer system, such as epoxy zinc (e.g. Interzinc 52) and tie coat (e.g. Intergard 269) may be used, and should not exceed 110 microns (4.5 mils) combined dry film thickness.

APPLICATION

Mixing	For trowel application individual components should be stored at 35°C (95° F) and fully power agitated before mixing.	
Mix Ratio	2.74 : 1 by weight (For trowel application refer to the Chartek Application Guidelines).	
Working Pot Life	15°C (59°F) 35 minutes	25°C (77°F) 40°C (104°F) 35 minutes 25 minutes
	<p>Pot life values refer to trowel workability without thinning, heated to 35°C before mixing. If material is not pre-heated pot life will be extended but mixing will be more difficult.</p> <p>Working pot life is not applicable for plural airless spray application as the product is only mixed at the spray gun, at the point of application. For pre-mix airless spray, working pot life will be reduced in relation to the above figures. Refer to the Chartek Application Guidelines.</p>	
Plural Component Airless Spray	Recommended and preferred	Heated plural equipment approved by International Paint. No thinners required.
Trowel	Suitable - small areas only	Typically thinned by up to 5% solvent
Thinner	International GTA123	Only for pre-mix and trowel application - consult Application Guidelines
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	<p>Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.</p> <p>All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.</p>	

Epoxy Intumescent

PRODUCT CHARACTERISTICS

The following conditions shall apply (or be generated) throughout the application:

Minimum Air Temperature	10°C (50°F)
Maximum Humidity	85%
Surface Temperature	A minimum of 3°C (5°F) above dew point of surrounding air.
General	Surfaces must be clean, dry and free from contaminants immediately prior to coating.

Application

Chartek 7E should be spray applied to ensure total wetting of the substrate is achieved. Where this is not possible by spray alone, then the first coat should be thoroughly trowelled and rolled to achieve this. The best time to overcoat Chartek 7E with itself is 'wet on wet' or within 12 hours of application and before the coating has had any chance to become contaminated.

Mesh Application

If mesh reinforcement is required, International Paint's HK-1 carbon composite mesh should be installed in accordance with specific fire design and as detailed in the Chartek Application Guidelines. For mesh requirements seek specific advice from International Protective Coatings. Details need to be addressed on a project specific basis for the acceptance of the Certifying Authority.

After Mesh Application (if applicable)

Continue to spray apply Chartek 7E to bring up to the required film thickness

Equipment

Only equipment qualified by International Protective Coatings shall be used as detailed in the Chartek Application Manual or by the International Protective Coatings Technical Service Representative.

Applicator Qualification

Only companies in receipt of Qualified Applicator status from International Protective Coatings shall be used for Chartek 7E application. Companies shall document that they comply with this requirement prior to work commencement. The Chartek 7E application shall be conducted by the Applicator Company using employees trained in the proper application procedures. As a minimum, Supervisory and QA/QC personnel on site shall be in receipt of individual qualifications, having attended an International Protective Coatings Chartek Applicator Training School. This is a minimum requirement and shall be documented prior to work commencement.

Inspection & QA

This is the responsibility of the Applicator but as a minimum must conform to the procedures laid down in International Protective Coatings Chartek QC Manual

Technical Service

This is available from International Protective Coatings and should be co-ordinated to ensure attendance at job start up. The Applicator Company is responsible for ensuring International Protective Coatings is notified of start up date.

Alternative Surface Preparation

Under certain project specific circumstances, International Protective Coatings has developed procedures for wet blasting, ultra high pressure water blasting (hydroblasting) and power tool cleaning. Consult International Protective Coatings for specific advice.

Maximum Surface Operating Temperature

At service temperatures of between 80°-120°C (176°-248°F) a suitable thermal barrier, e.g. Intertherm 7050, should be used between the substrate and the Chartek 7E.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Chartek 7E is normally applied over a suitably primed substrate. Please contact International Protective Coatings for confirmation of suitability of selected primer.

Generally Chartek 7E will be topcoated to meet owners' colour schemes and finish requirements. International Protective Coatings recommends the use of topcoats in all external applications.

The following topcoats are recommended for Chartek 7E:

- Interthane 990
- Interfine 878
- Intergard 269 (Use as a Tie Coat)

Epoxy Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	14.65 kg (32.30 lb)	5.35 kg (11.79 lb)
50 kg (110.2 lb) kit	36.64 kg (80.78 lb)	13.37 kg (29.48 lb)

20 kg (44.1 lb) kit supplied as 1 drum Part A and 1 plastic pail Part B. Part A drum is partially filled to allow Part B to be added and pre-mixed prior to application by single leg spray or hand trowel application.

50 kg (110.2 lb) kit supplied as 2 full drums Part A and 1 full drum Part B. Suitable for use with plural component airless spray pumps.

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	16.45 kg (36.27 lb)	7.15 kg (15.76 lb)
50 kg (110.2 lb) kit	38.44 kg (84.75 lb)	15.17 kg (33.44 lb)

STORAGE

Shelf Life 6 months minimum at 25°C. Should be stored indoors and out of direct sunlight. A temperature range of 1-30°C (34-86°F) must be maintained.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 23/06/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Intumescent

PRODUCT DESCRIPTION

Chartek 8E is a high performance, high build, solvent free, two component epoxy intumescent fire protection coating system. It is lightweight, durable and provides excellent corrosion protection.

Chartek 8E is independently tested and certified as a passive fire protection system; preserving the structural and functional integrity of the protected item for specified periods of time against the effects of hydrocarbon fires.

INTENDED USES

Suitable for the protection of steel, aluminium and other substrates from the effects of hydrocarbon pool and jet fires.

To preserve functional integrity for a specified period of time of structures, pipework, vessels and fire resistant divisions.

Primarily intended for use in high risk environments such as oil, gas, petrochemical and power generation industries.

PRACTICAL INFORMATION FOR CHARTEK 8E

Colour	Medium Grey
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	Dependent on level of protection required.
Density	1000 kg/m ³ (62.427 lb/ft ³) plural spray applied (ISO 1183:2004 Method A)
Method of Application	Two component heated plural spray unit, modified airless spray unit or trowel applied (see Application section)

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	9 hours	16 hours	16 hours	*1
25°C (77°F)	9 hours	9 hours	9 hours	*1
40°C (104°F)	5 hours	6 hours	6 hours	*1

*1 * Consult International Protective Coatings for advice

REGULATORY DATA

Flash Point (Typical) Part A >106°C (>223°F); Part B >106°C (>223°F); Mixed >106°C (>223°F)

VOC 1 g/lt Calculated
1 g/lt (0 lb/gal) EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Intumescent

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

Primers

Selected primers or priming systems must have completed the primer qualification procedure from International Protective Coatings, feature on the International Protective Coatings published qualified primers list and be applicable to the appropriate certification. The preferred primer shall be an epoxy polyamide (e.g. Intergard 251) at a thickness not exceeding 75 microns (3 mils). Alternatively, a two coat primer system, such as epoxy zinc (e.g. Interzinc 52) and tie coat (e.g. Intergard 269) may be used, and should not exceed 110 microns (4.5 mils) combined dry film thickness.

APPLICATION

Mixing	If applying Chartek 8E by modified single feed airless spray pump or trowel, it will first be necessary to thoroughly power mix a kit of Chartek 8E. Individual components must have been stored for 24 hours at 25 - 30°C (77 - 86°F) and fully power agitated before mixing.	
Mix Ratio	Always mix full kits. (For trowel application refer to the Chartek Application Guidelines).	
Working Pot Life	15°C (59°F) 120 minutes	25°C (77°F) 30°C (86°F) 90 minutes 45 minutes
	The above figures are for trowel application. Working pot life is not applicable for plural airless spray application as the product is only mixed at the spray gun, at the point of application. For pre-mix airless spray, working pot life will be reduced in relation to the above figures. Refer to the Chartek Application Guidelines.	
Plural Component Airless Spray	Recommended and preferred	Heated plural equipment approved by International Paint No thinners required.
Airless Spray	Recommended	Recommended use minimum 68:1 modified airless spray unit, as qualified by International Protective Coatings.
Trowel Thinner	Suitable International GTA123	Small areas only Only for pre-mix and trowel application - consult Application Guidelines
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA123. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Intumescent

PRODUCT CHARACTERISTICS

The following conditions shall apply (or be generated) throughout the application:

Minimum Air Temperature	10°C (50°F)
Maximum Humidity	85%
Surface Temperature	A minimum of 3°C (5°F) above dew point of surrounding air.
General	Surfaces must be clean, dry and free from contaminants immediately prior to coating.

Application

Chartek 8E should be spray applied to ensure total wetting of the substrate is achieved. Where this is not possible by spray alone, then the first coat should be thoroughly trowelled and rolled to achieve this.

The best time to overcoat Chartek 8E with itself is 'wet on wet' or within 12 hours of application and before the coating has had any chance to become contaminated.

Mesh Application

If mesh reinforcement is required, International Paint's HK-1 or HK-2 carbon composite mesh should be installed in accordance with specific fire design and as detailed in the Chartek Application Guidelines. For mesh requirements seek specific advice from International Protective Coatings.

After Mesh Application (if applicable)

Continue to spray apply Chartek 8E to bring up to the required film thickness

Applicator Qualification

Only companies in receipt of Qualified Applicator status from International Protective Coatings shall be used for Chartek 8E application. Companies shall document that they comply with this requirement prior to work commencement.

The Chartek 8E application shall be conducted by the Applicator Company using employees trained in the proper application procedures. As a minimum, Supervisory and QA/QC personnel on site shall be in receipt of individual qualifications, having attended an International Protective Coatings Chartek Applicator Training School. This is a minimum requirement and shall be documented prior to work commencement.

Inspection & QA

This is the responsibility of the Applicator but as a minimum must conform to the procedures laid down in International Protective Coatings Chartek QC Manual

Technical Service

This is available from International Protective Coatings and should be co-ordinated to ensure attendance at job start up. The Applicator Company is responsible for ensuring International Protective Coatings is notified of start up date.

Alternative Surface Preparation

Under certain project specific circumstances, International Protective Coatings has developed procedures for wet blasting, ultra high pressure water blasting (hydroblasting) and power tool cleaning. Consult International Protective Coatings for further details.

Continuous Operating Temperature

At service temperatures greater than 120°C (>248°F) a suitable thermal barrier should be used between the substrate and Chartek 8E.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Minimum recommended; two component polyurethane topcoat, International Protective Coatings' Interthane 990, applied at a dry film thickness of 50 microns (2 mils). For alternatives, contact International Protective Coatings.

Epoxy Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Chartek 8E Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Weight	Pack	Weight	Pack
	50 kg	35.7 kg	20 litre	14.3 kg	20 litre
	50kg (110.2 lb) kit supplied as 2 full drums Part A and 1 full drum Part B.				
	For availability of other pack sizes, contact International Protective Coatings.				
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	50 kg	39.3 kg		16.1 kg	
STORAGE	Shelf Life	1 year under normal temperature conditions. Should be stored indoors and out of direct sunlight. A temperature range of 1-30°C (34-86°F) must be maintained.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 29/04/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Intumescent

PRODUCT DESCRIPTION

Chartek 1709 is a high performance epoxy intumescent fire protection coating system.

The product is a high build, two pack material providing excellent durability and combined corrosion and fire protection.

ANSI/UL 1709 tested and Exterior Listed by Underwriters Laboratories (UL) for fire durations up to 4 hours. Specification tested by FM Approvals to ASTM E1529-06.

Certified by Lloyd's Register (LR) using ISO TR834-3 and BS476, Parts 2 and 21 Appendix D, hydrocarbon time / temperature relationship, when applied over mild steel and hot dip galvanised steel.

INTENDED USES

For use in the onshore oil, gas, petrochemical and power generation industries.

For the protection of steel structures, pipework and vessels from the effects of hydrocarbon pool fires and cryogenic spill and splash.

All applications of Chartek 1709 shall strictly conform with procedures laid down in International Protective Coatings' Chartek Application Manual.

PRACTICAL INFORMATION FOR CHARTEK 1709

Colour	Medium Grey (Part A - Dark Grey: Part B - White)			
Gloss Level	Not applicable			
Volume Solids	100%			
Typical Thickness	Depends on protection required. Normally in the range of 2.74-18.08 mm (108-712 mils)			
Theoretical Coverage	1 kg of Chartek 1709 will provide 1 mm of fire protection to 1 m ² (based on plural component application)			
Practical Coverage	Allow appropriate loss factors			
Density	1000 kg/m ³ (62.427 lb/ft ³) - plural spray applied (ISO 1183:2004 Method A). The final applied density will be affected by equipment used and method of application. For further information the Chartek Application Manual should be consulted.			
Method of Application	Two component heated plural spray unit, modified airless spray unit or trowel applied (see Application section)			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	8 hours	18 hours	4 hours ¹	1 week
25°C (77°F)	5 hours	16 hours	3 hours ¹	1 week
40°C (104°F)	2 hours	6 hours	2 hours ¹	4 days

¹ Time at which the base layer can withstand a WFT gauge.

Overcoating intervals differ when using other topcoats (see Product Characteristics and Systems Compatibility sections for further information).

For all drying times, see also International Protective Coatings Definitions and Abbreviations.

REGULATORY DATA

Flash Point (Typical) Part A >106°C (223°F); Part B >106°C (223°F); Mixed >106°C (223°F)

VOC 0.08 lb/gal (10 g/lit)
2 g/kg EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Intumescent

SURFACE PREPARATION

Surface preparation and application should be carried out in accordance with the advice given in International Protective Coatings' Chartek Application Guidelines.

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Carbon Steel Substrates

Chartek 1709 is typically applied to surfaces which have been abrasive blast cleaned to a minimum standard of Sa2 (ISO8501-1:2007) or SSPC-SP6 and suitably primed. For optimum performance, blast clean to Sa2½ (ISO8501-1:2007) or SSPC-SP10 quality.

Galvanised Substrates

Ideally, galvanised substrates should be sweep blast cleaned to a standard similar to Sa1 (ISO8501-1:2007) or SSPC-SP16. For reduced surface preparation options, consult International Protective Coatings.

Primers

Selected primers or priming systems must have completed the primer qualification procedure from International Protective Coatings, feature on the International Protective Coatings published qualified primers list and be applicable to the appropriate certification. The preferred primer shall be an epoxy polyamide (e.g. Intergard 251) at a thickness not exceeding 75 microns (3 mils). Alternatively, a two coat primer system, such as epoxy zinc (e.g. Interzinc 52) and tie coat (e.g. Intergard 269) may be used, and should not exceed 110 microns (4.5 mils) combined dry film thickness. Specific primers have been tested to thicknesses outside these parameters; see the Chartek Primer List.

APPLICATION

Mixing	If applying Chartek 1709 by modified single feed airless spray pump or trowel, it will first be necessary to thoroughly power mix a kit of Chartek 1709. Individual components must have been stored for 24 hours at 21 - 27°C (70 - 80°F) and fully power agitated before mixing.	
Mix Ratio	Always mix full kits. (For trowel application refer to the Chartek Application Guidelines).	
Working Pot Life	15°C (59°F) 120 minutes	25°C (77°F) 90 minutes
	The above figures are for trowel application. Working pot life is not applicable for plural airless spray application as the product is only mixed at the spray gun, at the point of application. For pre-mix airless spray, working pot life will be reduced in relation to the above figures. Refer to the Chartek Application Guidelines.	
Plural Component Airless Spray	Recommended and preferred	Heated plural equipment approved by International Paint No thinners required
Airless Spray	Recommended	Recommended use minimum 68:1 modified airless spray unit, as qualified by International Protective Coatings. Typically thinned by up to 5% solvent by volume
Trowel Thinner	Suitable International GTA123	Typically thinned by up to 5% solvent Only for pre-mix and trowel application - consult Application Guidelines
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA123. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Intumescent

PRODUCT CHARACTERISTICS

The following conditions shall apply (or be generated) throughout the application:

Minimum Air Temperature	10°C (50°F)
Maximum Humidity	85%
Surface Temperature	A minimum of 3°C (5°F) above dew point of surrounding air.
General	Surfaces must be clean, dry and free from contaminants immediately prior to coating.

Application

Chartek 1709 should be spray applied to ensure total wetting of the substrate is achieved. Where this is not possible by spray alone, then the first coat should be thoroughly trowelled and rolled to achieve this.

The best time to overcoat Chartek 1709 with itself is 'wet on wet' or within 12 hours of application and before the coating has had any chance to become contaminated.

Where Chartek 1709 is to be overcoated with recommended topcoats, the following overcoating intervals will apply;

	Minimum	Maximum
10°C (50°F)	24 hours	7 days
25°C (77°F)	18 hours	7 days
40°C (104°F)	6 hours	4 days

Mesh Application

If mesh reinforcement is required, International Paint's HK-1 carbon composite mesh should be installed in accordance with specific fire design and as detailed in the Chartek Application Guidelines. For mesh requirements seek specific advice from International Protective Coatings.

Applicator Qualification

Only companies in receipt of Qualified Applicator status from International Protective Coatings shall be used for Chartek 1709 application. Companies shall document that they comply with this requirement prior to work commencement.

The Chartek 1709 application shall be conducted by the Applicator Company using employees trained in the proper application procedures. As a minimum, Supervisory and QA/QC personnel on site shall be in receipt of individual qualifications, having attended an International Protective Coatings Chartek Applicator Training School. This is a minimum requirement and shall be documented prior to work commencement.

Inspection & QA

This is the responsibility of the Applicator but as a minimum must conform to the procedures laid down in International Protective Coatings Chartek QC Manual.

Technical Service

This is available from International Protective Coatings and should be co-ordinated to ensure attendance at job start up. The Applicator Company is responsible for ensuring International Protective Coatings is notified of start up date.

Alternative Surface Preparation

Under certain project specific circumstances, International Protective Coatings has developed procedures for wet blasting, ultra high pressure water blasting (hydroblasting) and power tool cleaning. Consult International Protective Coatings for specific advice.

Maximum Surface Operating Temperature

At service temperatures greater than 120°C (>248°F) a suitable thermal barrier should be used between the substrate and Chartek 1709.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Selected primers or priming systems must have completed the primer qualification procedure from International Protective Coatings and be listed on the International Protective Coatings published qualified primers list.

Generally Chartek 1709 will be topcoated to meet owners' colour schemes and finish requirements. International Protective Coatings recommends the use of topcoats in all external applications.

The following topcoats are recommended for Chartek 1709:

Interfine 878	Interthane 990
Interfine 979	Interthane 990HS

Epoxy Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Further information regarding Chartek products can be found at www.chartek.com.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	14.3 kg (31.5 lb)	5.7 kg (12.6 lb)
50 kg (110.2 lb) kit	35.7 kg (78.7 lb)	14.3 kg (31.5 lb)

20 kg (44.1 lb) kit supplied as 1 drum Part A and 1 plastic pail Part B. Part A drum is partially filled to allow Part B to be added and pre-mixed prior to application by single leg spray or hand trowel application.

50 kg (110.2 lb) kit supplied as 2 full drums Part A and 1 full drum Part B. Suitable for use with plural component airless spray pumps.

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

Kit Size	Part A Weight	Part B Weight
20 kg (44.1 lb) kit	16.1 kg (35.5 lb)	6.3 kg (13.9 lb)
50 kg (110.2 lb) kit	39.3 kg (86.6 lb)	16.1 kg (35.5 lb)

STORAGE

Shelf Life	Storage Conditions
1 year	under normal temperature conditions. Should be stored indoors and out of direct sunlight. A temperature range of 1-30°C (34-86°F) must be maintained.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

Epoxy Novolac

PRODUCT DESCRIPTION A solvent free, two component polycyclamine cured lining system utilising advanced epoxy novolac technology.

INTENDED USES To provide corrosion protection for the internals of steel storage tanks, vessels, spools and pipes for a range of products, including (but not limited to); crude oil up to 93°C (200°F), refined oil products (including unleaded gasoline blends and solvents) and biofuels.

Enviroline 376F-30 is also suitable as an external coating for buried pipes.

PRACTICAL INFORMATION FOR ENVIROLINE 376F-30

Colour	Limited colour range available
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	500-1000 microns (20-40 mils) dry equivalent to 500-1000 microns (20-40 mils) wet
Theoretical Coverage	1.30 m ² /litre at 750 microns d.f.t and stated volume solids 53 sq.ft/US gallon at 30 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors. Refer to Enviroline Application Guidelines for advice on film thickness determination
Method of Application	Plural Component Airless Spray, Airless Spray
Drying Time	

Overcoating interval with self

Temperature	Touch Dry	Hard Dry	Minimum	Maximum
15°C (59°F)	7 hours	12 hours ¹	12 hours	20 hours ²
25°C (77°F)	2 hours	4 hours ¹	2.5 hours	6 hours ²
35°C (95°F)	1 hour	2 hours ¹	2 hours	3 hours ²

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

² If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper.

REGULATORY DATA

Flash Point (Typical)	Mixed 66°C (151°F)	
Product Weight	1.53 kg/l (12.8 lb/gal)	
VOC	0.36 lb/gal (44 g/l) 69 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Best performance will always be achieved when Enviroline 376F-30 is applied to surfaces prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007) or SSPC-SP5. Where Enviroline 376F-30 is not to be used in high heat and/or aggressive service, preparation to Sa2½ (ISO 8501-1:2007) or SSPC-SP10 may be acceptable. A sharp, angular surface profile of 75-125 microns (3-5 mils) is recommended. Contact International Protective Coatings for further information.

Enviroline 376F-30 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

Concrete Substrates

Concrete should be well cured prior to application of the flooring, lining or coating system. Refer to the Concrete Surface Preparation Guidelines for more information.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
Mix Ratio	2 part(s) : 1 part(s) by volume	
Working Pot Life	40°C (104°F) 10 minutes	
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Suitable	Refer to Enviroline Application Guidelines for more details.
Air Spray (Pressure Pot)	Not suitable	
Brush	Suitable	Can be used for the touch-up of small areas or for stripe coating of welds and edges.
Thinner	Not normally required	Refer to Enviroline Application Guidelines for specific advice.
Cleaner	Enviroline 71C (or International GTA203)	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with Enviroline 71C or International GTA203. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units	
Clean Up	Clean all equipment immediately after use with Enviroline 71C or International GTA203. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 376F-30. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 376F-30 is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Stripe coating is an essential part of good working practice and as such should form part of any lining specification.

For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For plural component airless spray application, best results will be achieved when the product is heated prior to application; Part A (Resin) to a maximum of 60°C (140°F) and Part B (Hardener) to a maximum of 40°C (105°F). For airless spray application, best results will be achieved when each component of the product is heated prior to application to 35-37°C (95-100°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
Preferred	21-49°C (70-120°F)	21-38°C (70-100°F)
Minimum	13°C (55°F)	13°C (55°F)

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

Post-curing is not necessary for most applications, but Enviroline 376F-30 may be post-cured to expedite curing or increase chemical resistance for extremely aggressive environments. Post-cure for a minimum of 2 hours at 121°C (250°F) or 6-8 hours at 66°C (150°F) for maximum resistance.

Maximum continuous dry temperature resistance for Enviroline 376F-30 is 149°C (300°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Enviroline 376F-30 should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

Enviroline 376F-30 is designed as a single coat system. It must only be overcoated with itself should re-coats or touch-up be required.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Envioline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4 US gal	2.67 US gal	5 US gal	1.33 US gal	2 US gal
	18 litre	12 litre	20 litre	6 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	4 US gal	81.5 lb		45.2 lb	
	18 litre	18.48 kg		10.02 kg	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 24/03/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

Epoxy Novolac

PRODUCT DESCRIPTION Enviroline 376F-30LT is a low temperature cure version of Enviroline 376F-30 specifically designed to cure at temperatures down to -7°C (20°F) and provide resistance to a wide range of chemicals and solvents.

INTENDED USES Enviroline 376F-30LT is a new generation system providing improved performance benefits:

- Excellent chemical resistance
- High temperature immersion resistance (eg crude up to 60°C (140°F))
- Fast cure (**see page 3 for full cure times**)
- Thermal and mechanical shock resistance
- Ultra low VOC
- Single coat application
- Cathodic disbondment resistance
- Good flexibility
- Good abrasion and impact resistance

Applications include steel and concrete lining in the oil and gas, chemical, mining and water industries on assets such as crude and petroleum bulk storage tanks, downhole tubulars, downhole casing exteriors, interior and exterior pipes, floors, tank pads, trenches, troughs, sumps and pits.

PRACTICAL INFORMATION FOR ENVIROLINE 376F-30LT

Colour	Limited colour range available
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	500-1000 microns (20-40 mils) dry equivalent to 500-1000 microns (20-40 mils) wet
Theoretical Coverage	1.30 m ² /litre at 750 microns d.f.t and stated volume solids 53 sq.ft/US gallon at 30 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Plural Component Airless Spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
-7°C (20°F)	5 hours	8 hours ¹	8 hours	72 hours ²
0°C (32°F)	2 hours	4 hours ¹	4 hours	36 hours ²
10°C (50°F)	1 hour	2 hours ¹	2 hours	18 hours ²

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

² If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper

REGULATORY DATA

Flash Point	Mixed 66°C (150°F)	
Product Weight	1.49 kg/l (12.4 lb/gal)	
VOC	30 g/lit (0.18 lbs/gal)	Calculated

See Product Characteristics section for further details

Protective Coatings

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Best performance will always be achieved when Enviroline 376F-30LT is applied to surfaces prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007) or SSPC-SP5. Where Enviroline 376F-30LT is not to be used in high heat and/or aggressive service, preparation to an absolute minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP10 at time of coating application may be acceptable. Contact International Protective Coatings for further information.

A sharp, angular surface profile of 75-125 microns (3-5 mils) is recommended.

Enviroline 376F-30LT must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

Concrete Surfaces

Refer to International Protective Coatings for specific recommendations.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
Mix Ratio	2 part(s) : 1 part(s) by volume	
Working Pot Life	35°C (95°F) 10 minutes	
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Suitable	Refer to Enviroline Application Guidelines for more details. Tip Range 0.74-0.89 mm (29-35 thou)
Brush	Suitable	Can be used for the touch-up of small areas or for stripe coating of welds and edges.
Thinner	Not normally required	Refer to Enviroline Application Guidelines for specific advice.
Cleaner	Enviroline 71C	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Enviroline 71C. Once units of paint have been mixed, they should not be resealed and it is advised that after prolonged stoppages, work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with Enviroline 71C. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 376F-30LT . Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 376F-30LT is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Stripe coating is an essential part of good working practice and as such should form part of any lining specification.

For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For airless spray application, heat each component to 32-35°C (90-95° F) prior to mixing. For plural component application, viscosity of the Part A and Part B varies. For best results, heat Part A side to maximum of 54°C (130°F) and heat Part B side to a maximum of 41°C (105°F).

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
Preferred	-1 to 18°C (30-65°F)	-1 to 18°C (30-65°F)
Minimum	-7°C (20°F)	-7°C (20°F)

For low temperature applications, typical full cure times are;

-7°C (20°F)	7 days
0°C (30°F)	3 days
10°C (50°F)	1 day

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

Maximum continuous dry temperature resistance for Enviroline 376F-30LT is 121°C (250°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Enviroline 376F-30LT should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

Enviroline 376F-30LT is designed as a single coat system. It must only be overcoated with itself should re-coats or touch-up be required.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Enviroline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4 US gal	2.67 US gal	5 US gal	1.33 US gal	2 US gal
	18 litre	12 litre	20 litre	6 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
	4 US gal	36.6 lb		16.7 lb	
	18 litre	18.48 kg		9.63 kg	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any

Epoxy Novolac

PRODUCT DESCRIPTION A solvent free, two component polyclamine cured lining system utilising advanced epoxy novolac technology with flake and fibre reinforcement.

INTENDED USES To provide corrosion protection for the internals of steel storage tanks, vessels, spools and pipes for use with a range of products, including (but not limited to); crude oil up to 93°C (200°F), refined oil products (including unleaded gasoline blends and solvents) and biofuels.

Using Enviroline 376F-60 as a thick film reinforced lining, in conjunction with API653 inspection and API652 guidelines, allows internal inspection intervals to be set at the maximum time allowable.

PRACTICAL INFORMATION FOR ENVIROLINE 376F-60

Colour	Limited colour range available
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	1250-2000 microns (50-80 mils) dry equivalent to 1250-2000 microns (50-80 mils) wet
Theoretical Coverage	0.60 m ² /litre at 1650 microns d.f.t and stated volume solids 24 sq.ft/US gallon at 66 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors. Refer to Enviroline Application Guidelines for advice on film thickness determination
Method of Application	Plural Component Airless Spray, Airless Spray
Drying Time	

Overcoating interval with self

Temperature	Touch Dry	Hard Dry	Minimum	Maximum
15°C (59°F)	7 hours	12 hours ¹	12 hours	20 hours ²
25°C (77°F)	2 hours	4 hours ¹	2.5 hours	6 hours ²
35°C (95°F)	1 hour	2 hours ¹	2 hours	3 hours ²

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

² If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper.

REGULATORY DATA

Flash Point (Typical)	Mixed 66°C (151°F)	
Product Weight	1.58 kg/l (13.2 lb/gal)	
VOC	0.35 lb/gal (42 g/l) 72 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Best performance will always be achieved when Enviroline 376F-60 is applied to surfaces prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007) or SSPC-SP5. Where Enviroline 376F-60 is not to be used in high heat and/or aggressive service, preparation to Sa2½ (ISO 8501-1:2007) or SSPC-SP10 may be acceptable. A sharp, angular surface profile of 75-125 microns (3-5 mils) is recommended. Contact International Protective Coatings for further information.

Enviroline 376F-60 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

Concrete Substrates

Concrete should be well cured prior to application of the flooring, lining or coating system. Refer to the Concrete Surface Preparation Guidelines for more information.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
Mix Ratio	2 part(s) : 1 part(s) by volume	
Working Pot Life	40°C (104°F) 10 minutes	
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Suitable	Refer to Enviroline Application Guidelines for more details.
Air Spray (Pressure Pot)	Not suitable	
Brush	Suitable	Can be used for the touch-up of small areas or for stripe coating of welds and edges.
Thinner	Not normally required	Refer to Enviroline Application Guidelines for specific advice.
Cleaner	Enviroline 71C (or International GTA203)	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with Enviroline 71C or International GTA203. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units	
Clean Up	Clean all equipment immediately after use with Enviroline 71C or International GTA203. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 376F-60. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 376F-60 is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Stripe coating is an essential part of good working practice and as such should form part of any lining specification.

For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For plural component airless spray application, best results will be achieved when the product is heated prior to application; Part A (Resin) to a maximum of 60°C (140°F) and Part B (Hardener) to a maximum of 40°C (105°F). For airless spray application, best results will be achieved when each component of the product is heated prior to application to 35-37°C (95-100°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
Preferred	21-49°C (70-120°F)	21-38°C (70-100°F)
Minimum	13°C (55°F)	13°C (55°F)

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

Post-curing is not necessary for most applications, but Enviroline 376F-60 may be post-cured to expedite curing or increase chemical resistance for extremely aggressive environments. Post-cure for a minimum of 2 hours at 121°C (250°F) or 6-8 hours at 66°C (150°F) for maximum resistance.

Maximum continuous dry temperature resistance for Enviroline 376F-60 is 149°C (300°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Enviroline 376F-60 should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

Enviroline 376F-60 is designed as a single coat system. It must only be overcoated with itself should re-coats or touch-up be required.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Enviroline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4 US gal	2.67 US gal	5 US gal	1.33 US gal	2 US gal
	18 litre	12 litre	20 litre	6 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	18 litre	18.36 kg		10.14 kg	
	4 US gal	36.5 lb		19.5 lb	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 13/04/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.envirolinegroup.com
www.international-pc.com

Epoxy Novolac

PRODUCT DESCRIPTION

Enviroline 376F-60LT is a low temperature cure version of Enviroline 376F-60 specifically designed to cure at temperatures down to -7°C (20°F) and provide resistance to a wide range of chemicals and solvents. Enviroline 376F-60LT contains a proprietary mixture of flake and fibre reinforcement to meet API RP 652 (October 2006) guidelines as a thick film reinforced lining.

INTENDED USES

Enviroline 376F-60LT is a new generation system providing improved performance benefits:

- Meets API 652 (October 2006)
- Excellent chemical and solvent resistance
- High temperature immersion resistance (eg crude up to 60°C (140°F))
- Fast cure (**see page 3 for full cure times**)
- Thermal and mechanical shock resistance
- Ultra low VOC
- Cathodic Disbondment resistance
- Excellent abrasion and impact resistance

Applications include steel and concrete lining in the oil and gas, chemical, mining and water industries on assets such as crude and petroleum bulk storage tanks, downhole tubulars, downhole casing exteriors, interior and exterior pipes, floors, tank pads, trenches, troughs, sumps and pits.

Using Enviroline 376F-60LT in conjunction with API 653 inspection and API 652 guidelines as a thick film reinforced lining allows internal inspection intervals to be set at the maximum time allowable; potentially 20 years.

PRACTICAL INFORMATION FOR ENVIROLINE 376F-60LT

Colour	Limited colour range available
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	1250-1500 microns (50-60 mils) dry equivalent to 1250-1500 microns (50-60 mils) wet
Theoretical Coverage	0.80 m ² /litre at 1250 microns d.f.t and stated volume solids 32 sq.ft/US gallon at 50 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Plural Component Airless Spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
-7°C (20°F)	5 hours	8 hours ¹	8 hours	72 hours ²
0°C (32°F)	2 hours	4 hours ¹	4 hours	36 hours ²
10°C (50°F)	1 hour	2 hours ¹	2 hours	18 hours ²

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

² If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper.

REGULATORY DATA

Flash Point (Typical)	Mixed 66°C (150°F)	
Product Weight	1.49 kg/l (12.4 lb/gal)	
VOC	21 g/lt (0.18 lbs/gal)	Calculated

See Product Characteristics section for further details

Protective Coatings

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Best performance will always be achieved when Enviroline 376F-60LT is applied to surfaces prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007) or SSPC-SP5. Where Enviroline 376F-60LT is not to be used in high heat and/or aggressive service, preparation to an absolute minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP10 at time of coating application may be acceptable. Contact International Protective Coatings for further information.

A sharp, angular surface profile of 75-125 microns (3-5 mils) is recommended.

Enviroline 376F-60LT must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

Concrete Surfaces

Refer to International Protective Coatings for specific recommendations.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
Mix Ratio	2 part(s) : 1 part(s) by volume	
Working Pot Life	35°C (95°F) 10 minutes	
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Suitable	Refer to Enviroline Application Guidelines for more details. Tip Range 0.74-0.89 mm (29-35 thou)
Brush	Suitable	Can be used for the touch-up of small areas or for stripe coating of welds and edges.
Thinner	Not normally required	Refer to Enviroline Application Guidelines for specific advice.
Cleaner	Enviroline 71C	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Enviroline 71C. Once units of paint have been mixed, they should not be resealed and it is advised that after prolonged stoppages, work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with Enviroline 71C. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 376F-60LT. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 376F-60LT is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Stripe coating is an essential part of good working practice and as such should form part of any lining specification.

For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For airless spray application, heat each component to 32-35°C (90-95° F) prior to mixing. For plural component application, viscosity of the Part A and Part B varies. For best results, heat Part A side to maximum of 54°C (130°F) and heat Part B side to a maximum of 41°C (105°F).

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
Preferred	0-18°C (30-65°F)	0-18°C (30-65°F)
Minimum	-7°C (20°F)	-7°C (20°F)

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

Maximum continuous dry temperature resistance for Enviroline 376F-60LT is 121°C (250°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Enviroline 376F-60LT should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

Enviroline 376F-60LT is designed as a single coat system. It must only be overcoated with itself should re-coats or touch-up be required.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Enviroline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4 US gal	2.67 US gal	5 US gal	1.33 US gal	2 US gal
	18 litre	12 litre	20 litre	6 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	4 US gal	36.6 lb		16.7 lb	
	18 litre	18.48 kg		9.63 kg	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 20/02/2014.

 International, International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy Novolac

PRODUCT DESCRIPTION

An ultra high solids, two component polycyclamine cured lining system utilising advanced epoxy novolac technology.

INTENDED USES

To provide corrosion protection for the internals of steel storage tanks, vessels, spools and pipes for a range of products, including (but not limited to); crude oil up to 120°C (249°F), refined oil products (including inleaded gasoline blends and solvents) and biofuels.

PRACTICAL INFORMATION FOR ENVIROLINE 405HT

Colour	Limited colour range available			
Gloss Level	Not applicable			
Volume Solids	98%			
Typical Thickness	500-1000 microns (20-40 mils) dry equivalent to 510-1020 microns (20.4-40.8 mils) wet			
Theoretical Coverage	1.30 m ² /litre at 750 microns d.f.t and stated volume solids 52 sq.ft/US gallon at 30 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Plural Component Airless Spray, Airless Spray			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
25°C (77°F)	2 hours	4 hours ¹	4 hours	8 hours ²
40°C (104°F)	1 hour	3 hours ¹	3 hours	6 hours ²

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

² If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper.

REGULATORY DATA

Flash Point (Typical)	Mixed 66°C (151°F)		
Product Weight	1.56 kg/l (13.0 lb/gal)		
VOC	0.54 lb/gal (65 g/l) 59 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Best performance will always be achieved when Enviroline 405HT is applied to surfaces prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007) or SSPC-SP5. Where Enviroline 405HT is not to be used in high heat and/or aggressive service, preparation to an absolute minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP10 at time of coating application may be acceptable. Contact International Protective Coatings for further information.

A sharp, angular surface profile of 75-125 microns (3-5 mils) is recommended.

Enviroline 405HT must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

The preferred method of holding the blast standard is by dehumidification. Alternatively, an approved holding primer may be used.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
Mix Ratio	2 part(s) : 1 part(s) by volume	
Working Pot Life	25°C (77°F) 45 minutes	40°C (104°F) 25 minutes
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Suitable	Consult International Protective Coatings for specific advice.
Air Spray (Pressure Pot)	Not suitable	
Brush	Suitable	Can be used for the touch-up of small areas or for stripe coating of welds and edges.
Thinner	Not normally required	Refer to Enviroline Application Guidelines for specific advice.
Cleaner	Enviroline 71C (or International GTA203)	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with Enviroline 71C or International GTA203. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units	
Clean Up	Clean all equipment immediately after use with Enviroline 71C or International GTA203. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 405HT. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 405HT is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Crude oil and produced water service environments above 100°C (212°F) must be approved by an International Paint Technical Representative.

Stripe coating is an essential part of good working practice and as such should form part of any lining specification.

For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For plural component airless spray application, best results will be achieved when the product is heated prior to application; Part A (Resin) to a maximum of 60°C (140°F) and Part B (Hardener) to a maximum of 40°C (105°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
Preferred	21-49°C (70-120°F)	21-38°C (70-100°F)
Minimum	16°C (60°F)	16°C (60°F)

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

Post-curing is not necessary for most applications, but Enviroline 405HT may be post-cured to expedite curing or increase chemical resistance for extremely aggressive environments. Post-cure for a minimum of 2 hours at 121°C (250°F) or 6-8 hours at 66°C (150°F) for maximum resistance.

Maximum continuous dry temperature resistance for Enviroline 405HT is 177°C (350°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Enviroline 405HT should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

Enviroline 405HT is designed as a single coat system. It must only be overcoated with itself should re-coats or touch-up be required.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Enviroline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	18 litre	12 litre	20 litre	6 litre	10 litre
	150 US gal ¹	100 US gal ¹	50 US gal ¹	50 US gal ¹	50 US gal ¹
¹ 150US gal unit supplied as 2x50gal of Part A and 1x50gal of Part B For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	150 US gal	677.7 lb		739.4 lb	
	18 litre	18.36 kg		10.08 kg	
150US gal unit supplied as 2x678lb Part A and 1 x 740lb of Part B					
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 24/03/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.envirolinegroup.com
www.international-pc.com

Epoxy Intumescent

PRODUCT DESCRIPTION

A high performance, high build, solvent free, two pack modified epoxy intumescent fireproofing coating designed to be used on steelwork requiring protection from cellulosic fires.

Independently fire tested. Recognised by FM Approvals as a Specification Tested Product in accordance with ASTM E119. Also tested in accordance with UL 263 (exterior listed), BS 476 Parts 20-22, GOST (Russia), ENV 13381 Pt 4, Australian Standard AS1530.4 (1997) and Korean Standard F 2257.

Typically applied off site by specialist applicators Interchar 212 will achieve the required fire protection thickness in only one or two coats. The product has excellent corrosion performance and mechanical properties. Interchar 212 can provide fully fire proofed steelwork without the need to topcoat.

Interchar 212 is primarily a spray applied material, and performs without the requirement for any reinforcement.

INTENDED USES

To assist in preserving the structural integrity of steelwork in a cellulosic fire. Typical structures requiring this protection include a number of public access buildings e.g Airport Terminals, Leisure Facilities, Convention Centres, Educational Facilities, Shopping Malls, Industrial Complexes, and Hotels.

Interchar 212 utilises tough durable epoxy technology to provide a material that allows for steelwork to be fabricated and fire protected away from the construction site which helps in both improving quality control and reducing construction schedules.

PRACTICAL INFORMATION FOR INTERCHAR 212

Colour	Medium Grey
Gloss Level	Matt Textured Finish
Volume Solids	100%
Typical Thickness	2 mm - 8 mm (0.08 - 0.32 inches) (Dependent on protection required). Typical thickness per coat 3.5 mm (0.14 inches)
Theoretical Coverage	1 kg of Interchar 212 will provide 1 mm of fire protection to 1 m ² (based on plural component application)
Practical Coverage	Allow appropriate loss factors
Density	1 kg/l (8.3 lb/gal) (Plural component airless spray)
Method of Application	Hot twin feed airless spray (Plural Component) or modified single feed machine

Drying Time

			Overcoating interval with self	
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	16 hours	24 hours	24 hours	Extended ¹
15°C (59°F)	8 hours	16 hours	24 hours	Extended ¹
25°C (77°F)	5 hours	12 hours	12 hours	Extended ¹
40°C (104°F)	2 hours	6 hours	8 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations
All drying time data has been quoted a typical thickness of 3.5 mm

REGULATORY DATA

Flash Point (Typical) Part A >106°C (223°F); Part B >106°C (223°F); Mixed >106°C (223°F)

VOC 0.09 lb/gal (11 g/lit)
2 g/kg EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Intumescent

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Steel surfaces must be abrasively blast cleaned and an approved priming system applied. Blast cleaning should be carried out in accordance with the requirements on the primer technical data sheet. The general requirement is blast cleaning, to Sa2½ (ISO 8501-1:2007) or SSPCSP6 to be carried out, with a sharp angular profile being obtained. The blast profile should be a minimum of 50 microns (2 mils) for steel substrates. Primer selection is based upon the final environment to which the fire protection system will be exposed.

Interchar 212 is also suitable for application to galvanised steel substrates. Surfaces should be prepared by sweep abrasive blasting to provide a roughened surface, to a standard similar to Sa 1 (ISO 8501-1), SSPC-SP7 or NACE No. 4. Typically a profile of 15-25 microns (0.6-1.0 mils) is achieved by sweep blasting. An approved primer should be applied after sweep blasting.

APPLICATION

Mixing	<p>If applying Interchar 212 by modified single feed airless spray pump or trowel, it will first be necessary to thoroughly power mix a kit of Interchar 212. Individual components must have been stored for 24 hours at 21 - 27° C (70 - 80°F) and fully power agitated before mixing.</p> <p>For plural component spray application, both components must be maintained at a temperature of 30-34°C (86-93°F) for 24 hours (maximum 48 hours) prior to use.</p>	
Mix Ratio	2.49 part(s) : 1 part(s) by weight. Always mix full units.	
Working Pot Life	15°C (59°F) 120 minutes	25°C (77°F) 90 minutes
Plural Component Airless Spray	Recommended	Heated plural equipment approved by International Paint
Airless Spray	Suitable	
Trowel	Suitable - small areas only	
Thinner	International GTA123 International GTA822 International GTA853	Only for pre-mix and trowel application - consult Application Guidelines
Cleaner	International GTA822	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822.	
Clean Up	<p>Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.</p> <p>All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.</p>	

Epoxy Intumescent

PRODUCT CHARACTERISTICS

The detailed Application Guidelines for Interchar epoxy coatings must be consulted prior to use. In addition it is mandatory that you make contact with International Paint to ensure that, if required, a training programme can be initiated in the application and use of this material. The Guidelines provide additional information about Interchar 212 and should be used together with the technical data sheet.

International Paint highly recommends the use of plural component equipment for Interchar 212. Alternative application methods such as modified airless spray can lead to increased usage and wastage compared to that associated with plural component methods.

When applying Interchar 212 in confined spaces ensure adequate ventilation.

The final surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

Do not apply at steel temperatures below 5°C (41°F). This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F). Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Interchar 212 will chalk and discolour on exterior exposure. These phenomena are not detrimental to fire proofing performance. Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Where multi-coat systems are to be used, optimum intercoat adhesion is best achieved by keeping the overcoating interval as short as possible.

Due to the high build nature of this material it may be necessary to roller areas to achieve the desired cosmetic finish.

Interchar 212 certified in accordance with the following standards:

- BS 476 parts 20-22:1987 UK - Approved up to 2 hours
- GOST Russia - Approved up to 2 hours
- UL 263 (exterior listed) USA - Approved up to 3 hours
- Factory Mutual (report ID 3028782)
- ENV 13381 Part 4 - Mainland Europe, approved up to 2 hours
- Korean Standard F 2257 - Approved up to 2 hours

Recognized by FM Approvals as a Specification Tested Product in accordance with ASTM E119.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interchar 212 has been tested as part of a coating system for use in fire situations in combination with a wide range of primers and topcoats.

The following primers are approved for use with Interchar 212:

Intercure 200	Intercure 200HS
Intergard 251	Intergard 269
Intergard 276	Interzinc 52

The following topcoats are approved for use with Interchar 212

Interfine 878	Interfine 979
Interthane 870	Interthane 990

Epoxy Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar Epoxy Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Weight	Pack	Weight	Pack
	20 kg	14.2 kg	20 litre	5.8 kg	6 litre
	50 kg	35.6 kg	20 litre	14.4 kg	20 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 kg	15.98 kg		6.35 kg	
	50 kg	39.16 kg		16.18 kg	
U.N. Shipping No. Non Hazardous					
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Intumescent

PRODUCT DESCRIPTION

A one component, solvent borne, high solids intumescent coating independently tested at accredited laboratories to assess fire protection performance on structural steelwork in accordance with a range of standards, providing up to 2 hours protection.

INTENDED USES

To provide fire protection on 'I' sections beams, columns and hollow sections. Due to its fast drying properties, and rapid recoatability, Interchar 963 is suitable for application in the steel fabrication shop and can be used over a wide range of approved priming systems.

PRACTICAL INFORMATION FOR INTERCHAR 963

Colour	White, Grey			
Gloss Level	Matt			
Volume Solids	75% ± 2% (measured according to ISO 3233 and ICF Method)			
Typical Thickness	350-750 microns (14-30 mils) dry equivalent to 467-1000 microns (18.7-40 mils) wet, achievable in one coat.			
Theoretical Coverage	1 m ² /litre at 750 microns d.f.t and stated volume solids 40 sq.ft/US gallon at 30 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	60 minutes	24 hours	8 hours ²	Extended ¹
15°C (59°F)	45 minutes	20 hours	6 hours ²	Extended ¹
25°C (77°F)	30 minutes	16 hours	4 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 963 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for Interthane or Interfine sealers). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

All drying time data has been quoted at the typical thickness of 750 microns (30 mils) d.f.t.

For application at ambient temperatures of 25°C (77°F) and above, a tropical grade is available. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical)	5°C (41°F)	
Product Weight	1.37 kg/l (11.4 lb/gal)	
VOC	2.71 lb/gal (325 g/lt)	EPA Method 24
	237 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

Acrylic Intumescent

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Primed Surfaces

Interchar 963 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be of normal appearance, dry and free from all contamination, and Interchar 963 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC SP6, Abrasive Blasting, or SSPC SP11, Power Tool Cleaning) and patch primed prior to the application of Interchar 963 .

Metallic Zinc Primed Surfaces

Interchar 963 can be applied over approved epoxy metallic zinc primers. Ensure that the primed surface is clean, dry and free from contamination and zinc salts, prior to application of the Interchar 963 . Ensure zinc primers are fully cured before overcoating. The use of a tie coat, typically Intergard 269 or Intergard 276, is recommended to prevent accumulation of zinc salts.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.48-0.59 mm (19-23 thou) Total output fluid pressure at spray tip not less than 246 kg/cm ² (3498 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Brush	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Not recommended	
Thinner	Not normally required	
Cleaner	International GTA007	
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic Intumescent

PRODUCT CHARACTERISTICS

The detailed Interchar 963 Application Guidelines should be consulted prior to use.

Required film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Low or high temperatures may require specific application techniques to achieve maximum film build. Over-application of Interchar 963 will extend both the minimum overcoating periods and handling times.

When applying Interchar 963 by brush, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 5°C (41°F) and relative humidity less than 85%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interchar 963 in confined spaces ensure adequate ventilation.

The finished appearance of Interchar 963 is dependent on application method. For visible areas spray application is preferred. High decorative finishes may require additional preparation before application of sealer coat. The final surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

Interchar 963 (whether sealed or not) should be protected from pooling or running water. Interchar 963 is not designed for frequent water immersion/soaking.

A version with greater water resistance is available which allows for Interchar 963 to remain unsealed for up to 6 months exterior exposure provided there is no pooled/heavy running water, or frequent high humidity conditions.

Tropical Grade

For improved product workability in warmer climates, a tropical grade version is available. Interchar 963 Tropical Grade has the following characteristics. Volume Solids 73%±2% ; VOC 350g/l, Flash Point 26°C (79°F).

Drying Times:

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
25°C (77°F)	2 hours	36 hours	16 hours ²	Extended ¹
40°C (104°F)	1 hour	24 hours	12 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 963 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for Interthane or Interfine sealers). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

SYSTEMS COMPATIBILITY

Interchar 963 has been tested as part of a coating system for use in fire situations over a wide range of approved priming systems.

The following primers are approved for use with Interchar 963 :

Intercure 200	Intercure 200HS
Intergard 251	Intergard 269
Interplate 398	Interprime 306
Interseal 670HS	Interzinc 42
Interzinc 52	

The following topcoats are approved for use with Interchar 963

Intersheen 579	Interthane 870
Interthane 990	Interfine 878

Where a polysiloxane topcoat is envisaged, application of a tie coat over Interchar 963 will be necessary; please consult the Application Guidelines for further information.

Acrylic Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar Application Guidelines

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	
	Vol	Pack
	20 litre	20 litre
	5 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.		
SHIPPING WEIGHT (TYPICAL)	Unit Size	
	20 litre	29.2 kg
	5 US gal	60.5 lb
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Intumescent

PRODUCT DESCRIPTION

A single component, solvent borne, high solids intumescent coating independently tested to assess fire protection performance on structural steelwork in accordance with a range of standards.

INTENDED USES

To provide fire protection on structural 'I' sections, beams and columns for up to 2 hours.

Due to its fast drying properties, and rapid recoatability, Interchar 973 is suitable for application in both on and off-site application facilities and can be used over a range of approved priming systems.

PRACTICAL INFORMATION FOR INTERCHAR 973

Colour	White, Pale Grey			
Gloss Level	Matt			
Volume Solids	70% ± 2% (measured according to ISO 3233 and ICF Method)			
Typical Thickness	300-700 microns (12-28 mils) dry equivalent to 429-1000 microns (17.2-40 mils) wet, achievable in one coat.			
Theoretical Coverage	1 m ² /litre at 700 microns d.f.t and stated volume solids 40 sq.ft/US gallon at 28 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	60 minutes	24 hours	8 hours	Extended ¹
15°C (59°F)	45 minutes	20 hours	6 hours	Extended ¹
25°C (77°F)	30 minutes	16 hours	4 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 973 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for Interthane or Interfine sealers). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

All drying time data has been quoted at the typical thickness of 700 microns (28 mils) d.f.t.

For application at ambient temperatures of 25°C (77°F) and above, a tropical grade is available. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical)	4°C (39°F)	
Product Weight	1.34 kg/l (11.2 lb/gal)	
VOC	2.83 lb/gal (340 g/l) 267 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Acrylic Intumescent

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Primed Surfaces

Interchar 973 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interchar 973 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interchar 973.

Consult the Interchar Solvent Based Application Guidelines for more details regarding surface preparation.

Metallic Zinc Primed Surfaces

Interchar 973 can be applied over approved epoxy metallic zinc primers, provided that these have been overcoated with an approved tie coat. Ensure that the primed surface is clean, dry and free from contamination prior to application of the Interchar 973. Recommended tie coats are Intergard 269 or Intergard 276.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.48-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 246 kg/cm ² (3498 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Brush	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Not recommended	
Thinner	Not recommended	
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic Intumescent

PRODUCT CHARACTERISTICS

The detailed Interchar 973 Application Guidelines should be consulted prior to use.

When applying Interchar 973 by brush, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Multiple coats of Interchar 973 may be required in order to achieve the specified dry film thickness. The maximum dry film thickness which can be achieved in one coat is 700µm.

Over-application of Interchar 973 will extend both the minimum overcoating periods and handling times. Time to handle will vary as a function of overall film thickness applied, humidity and ventilation rate. Drying times will be extended at higher thicknesses

For optimum application and drying characteristics, the air and substrate temperature should be greater than 10°C (50°F) and relative humidity less than 85%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interchar 973 in confined spaces ensure adequate ventilation.

The final surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible. Where a high level of decorative surface finish is required, airless spray should be used.

Interchar 973 is suitable for use in environments classified as C3 (as per the ISO 12944 standard), when specified with an appropriate primer and sealer coat. Consult International Protective Coatings for specific recommendations.

Interchar 973 must be protected from pooling or running water, condensation/high humidity and chemical attack at all times. This is particularly important during application. Refer to the Application Guidelines for more details.

Interchar 973 is not designed for exposure to water immersion/soaking.

The application of a sealer coat over Interchar 973 must form a continuous film free of defects.

Interchar 973 is approved to a range of standards; please contact International Protective Coatings for further details.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Tropical Grade Cure

For improved product workability in warmer climates, a tropical grade version is available. Interchar 973 Tropical Grade has the following characteristics. Volume Solids 69%±2% ; Flash Point 26°C (79°F).

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
25°C (77°F)	2 hours	24 hours	24 hours	Extended ¹
40°C (104°F)	1 hour	20 hours	20 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

SYSTEMS COMPATIBILITY

The following primers are approved for use with Interchar 973:

Intercure 200	Intercure 200HS
Intergard 251	Intergard 269
Intergard 276	Interplate 398
Interprime 306	Interseal 670HS
Interzinc 42	

The following topcoats are approved for use with Interchar 973

Interfine 878	Intersheen 579
Interthane 870	Interthane 990

Where a polysiloxane topcoat is envisaged, application of a tie coat over Interchar 973 will be necessary; please consult the Application Guidelines for further information.

Acrylic Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
	5 US gal	5 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		29.2 kg
	5 US gal		56.2 lb
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Water Borne Intumescent Coating

PRODUCT DESCRIPTION

A single component, borate and chlorine free, water borne intumescent coating designed for on-site application to interior exposed structural steel requiring protection from cellulosic fire.

Interchar 1120 is a low VOC acrylic intumescent material independently fire tested for up to 3 hour fire ratings in accordance with ASTM E119/UL263, BS 476 20-22, EN 13381-8 and GB 14907.

Interchar 1120 is a CE marked product with European Technical Approval ETA-11/0045.

INTENDED USES

To provide cellulosic fire protection on beams, columns and hollow sections in interior environments.

PRACTICAL INFORMATION FOR INTERCHAR 1120

Colour	White			
Gloss Level	Matt			
Volume Solids	68% ± 3% (measured according to ISO 3233 and BCF Guidance Method)			
Typical Thickness	300-700 microns (12-28 mils) dry equivalent to 441-1029 microns (17.6-41.2 mils) wet Required film thickness is dependent upon fire rating			
Theoretical Coverage	1 m ² /litre at 700 microns d.f.t and stated volume solids 39 sq.ft/US gallon at 28 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	5 hours	6 hours	16 hours	Extended ¹
15°C (59°F)	4 hours	5 hours	12 hours	Extended ¹
25°C (77°F)	2 hours	4 hours	6 hours	Extended ¹
40°C (104°F)	1 hour	3 hours	3 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

All drying time data has been quoted at the typical thickness of 700 microns (28 mils) d.f.t. and assuming good air flow.

Minimum overcoating interval of Interchar 1120 with topcoats is 24 hours. Further details on minimum overcoating times are contained in the Application Guidelines.

REGULATORY DATA

Flash Point (Typical)	>101°C (214°F)		
Product Weight	1.40 kg/l (11.7 lb/gal)		
VOC	0.16 lb/gal (20 g/l) 0 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Water Borne Intumescent Coating

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Primed Steelwork

Interchar 1120 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interchar 1120 must be applied within the overcoating intervals specified (consult the Interchar 1120 Application Guidelines).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and a full coat of primer applied prior to overcoating with Interchar 1120.

Metallic Zinc Primed Surfaces

Interchar 1120 can be applied over approved epoxy metallic zinc primers, provided that these have been overcoated with an approved tie coat. Ensure that the primed surface is clean, dry and free from contamination prior to application of the Interchar 1120. Recommended tie coats are Intergard 269 or Intergard 276.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 175 kg/cm ² (2489 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Air Spray (Conventional)	Not suitable	
Brush	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Suitable - Small areas	Typically 100-300 microns (4.0-12.0 mils) can be achieved
Thinner	Not normally required.	
Cleaner	Clean Water	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with clean water. Do not use organic solvents.	
	All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning after storage.	
Clean Up	Clean all equipment immediately after use with clean water. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Water Borne Intumescent Coating

PRODUCT CHARACTERISTICS

The detailed Interchar 1120 Application Guidelines should be consulted prior to use.

Interchar 1120 is approved to a wide range of international standards; please contact International Protective Coatings for advice on fire resistance limits and certification.

Where approval to UL263 is required, product reference HFA122 should be requested.

Interchar 1120 must be protected from freezing at all times during storage and transport. For optimum application and drying characteristics, the air and substrate temperature should be greater than 10°C (50°F) and relative humidity less than 80%. Good air flow and ventilation should be maintained to improve drying and recoat properties and speed up the application. Application at temperatures below 10°C (50°F) will retard drying and extend overcoatings intervals, as will higher humidities.

Discard frozen Interchar 1120 in accordance with local disposal regulations. Do not thaw frozen material and apply.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. In line with good painting practice, application should not take place in conditions which are deteriorating, e.g. the temperature is falling or there is a risk of condensation forming.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Care must be taken not to over-apply on areas such as internal angles, corners, edges, etc.

The finished appearance of Interchar 1120 is dependent on application method. For visible areas spray application is preferred, which can provide a smooth finish. Higher decorative finishes may require additional preparation before application of topcoats; please see Application Guidelines for further information. Sealer coats are not necessary in environments which are classed as ISO 12944-2 C1.

Interchar 1120 is approved for interior exposure environments classified in accordance with ISO 12944. Consult International Paint for the appropriate primer and topcoat systems for the specified interior environment.

Interchar 1120 is UL listed for use in Conditioned Interior Space and Interior General Purpose conditions without a topcoat.

Interchar 1120 (whether sealed or not) should be protected from pooling or running water.

Interchar 1120 is not designed for frequent water immersion/soaking.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are approved for use with Interchar 1120:

Intercryl 525	Intercure 200
Intercure 200HS	Intergard 251
Intergard 269	Intergard 276
InterH2O 499	Interprime 306
Interseal 670HS	

Interchar 1120 may also be applied over Interzinc 52 providing a suitable tie coat is also used; please see Surface Preparation section.

The following topcoats are approved for use with Interchar 1120

Intersheen 579	Interthane 870
Interthane 990	Intercryl 525

There is a wider range of primers and topcoats which may be suitable for use with Interchar 1120; please contact International Protective Coatings for further information and assistance.

Water Borne Intumescent Coating

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar single pack water borne intumescent coatings application guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
	5 US gal	5 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		30.2 kg
	5 US gal		68.3 lb
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from frost.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Water Borne Intumescent Coating

PRODUCT DESCRIPTION

A single component, borate and chlorine free, water borne intumescent coating designed for on-site application to structural steel requiring protection from cellulosic fire.

Interchar 1190 is a low VOC acrylic intumescent material independently fire tested in accordance with BS 476 Parts 20-22.

INTENDED USES

To provide up to two hours cellulosic fire protection on beams, columns and hollow sections exposed in interior environments.

PRACTICAL INFORMATION FOR INTERCHAR 1190

Colour	White			
Gloss Level	Matt			
Volume Solids	69% ± 2% (measured according to ISO 3233 and BCF Guidance Method)			
Typical Thickness	250-700 microns (10-28 mils) dry equivalent to 362-1014 microns (14.5-40.6 mils) wet Required film thickness is dependent upon fire rating			
Theoretical Coverage	1 m ² /litre at 700 microns d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	5 hours	6 hours	16 hours	Extended ¹
15°C (59°F)	4 hours	5 hours	12 hours	Extended ¹
25°C (77°F)	2 hours	4 hours	6 hours	Extended ¹
40°C (104°F)	1 hour	3 hours	3 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

All drying time data has been quoted at the typical thickness of 700 microns (28 mils) d.f.t. and assuming good air flow.

Minimum overcoating interval of Interchar 1190 with topcoats is 24 hours.

Further details on minimum overcoating times are contained in the Application Guidelines.

REGULATORY DATA

Flash Point (Typical)	Part A >101°C (214°F)	
Product Weight	1.40 kg/l (11.7 lb/gal)	
VOC	0.27 lb/gal (33 g/l) 0 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Water Borne Intumescent Coating

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Primed Steelwork

Interchar 1190 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interchar 1190 must be applied within the overcoating intervals specified (consult the Interchar 1190 Application Guidelines).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and a full coat of primer applied prior to overcoating with Interchar 1190.

Metallic Zinc Primed Surfaces

Interchar 1190 can be applied over approved epoxy metallic zinc primers, provided that these have been overcoated with an approved tie coat. Ensure that the primed surface is clean, dry and free from contamination prior to application of the Interchar 1190. Recommended tie coats are Intergard 269 or Intergard 276.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 175 kg/cm ² (2489 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Air Spray (Conventional)	Not suitable	
Brush	Suitable - Small areas	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Suitable - Small areas	Typically 100-300 microns (4.0-12.0 mils) can be achieved
Thinner	Not normally required	
Cleaner	Clean Water	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with clean water.	
	All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning after storage.	
Clean Up	Clean all equipment immediately after use with clean water. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Water Borne Intumescent Coating

PRODUCT CHARACTERISTICS

The detailed Interchar 1190 Application Guidelines should be consulted prior to use.

Interchar 1190 must be protected from freezing at all times during storage and transport. For optimum application and drying characteristics, the air and substrate temperature should be greater than 10°C (50°F) and relative humidity less than 80%. Good air flow and ventilation should be maintained to improve drying and recoat properties and speed up the application. Application at temperatures below 10°C (50°F) will retard drying and extend overcoatings intervals, as will higher humidities.

Discard frozen Interchar 1190 in accordance with local disposal regulations. Do not thaw frozen material and apply.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. In line with good painting practice, application should not take place in conditions which are deteriorating, e.g. the temperature is falling or there is a risk of condensation forming.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Care must be taken not to over-apply on areas such as internal angles, corners, edges, etc.

The finished appearance of Interchar 1190 is dependent on application method. For visible areas spray application is preferred, which can provide a smooth finish. Higher decorative finishes may require additional preparation before application of topcoats; please see Application Guidelines for further information.

Interchar 1190 is approved for interior exposure environments classified in accordance with ISO 12944. Consult International Paint for the appropriate primer and topcoat systems for the specified interior environment.

Interchar 1190 (whether sealed or not) should be protected from pooling or running water. Interchar 1190 is not designed for frequent water immersion/soaking.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are approved for use with Interchar 1190

Intercure 200	Intergard 276
Intercure 200HS	InterH2O 499
Intercryl 525	Interprime 306
Intergard 251	Interseal 670HS
Intergard 269	

Interchar 1190 may also be applied over Interzinc 52 providing a suitable tie coat is also used; please see Surface Preparation section.

The following topcoats are approved for use with Interchar 1190

Intercryl 525	Interthane 990
Interthane 870	Intersheen 579

There is a wider range of primers and topcoats which may be suitable for use with Interchar 1190; please contact International Protective Coatings for further information and assistance.

Water Borne Intumescent Coating

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar 1190 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	30.2 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Water Borne Intumescent Coating

PRODUCT DESCRIPTION

A single component, borate, chlorine and APEO free, water borne intumescent coating designed for on-site application to interior exposed structural steel requiring protection from cellulosic fire.

Independently tested at accredited laboratories to BS476 Parts 20-21 and the European Standard EN 13381-8. Third party assessed and certified.

Interchar 1260 is a CE-marked product with European Technical Assessment ETA-14/0262.

INTENDED USES

To provide up to 60 minutes cellulosic fire protection over a wide range of I section beams and columns and hollow sections in interior environments. Will also provide up to 90 minutes fire protection to BS476, Parts 20-21.

PRACTICAL INFORMATION FOR INTERCHAR 1260

Colour	White			
Gloss Level	Matt			
Volume Solids	73% ± 2% (measured according to ISO 3233 and BCF Guidance Method)			
Typical Thickness	200-700 microns (8-28 mils) dry equivalent to 274-959 microns (11-38.4 mils) wet			
Theoretical Coverage	1.80 m ² /litre at 400 microns d.f.t and stated volume solids 73 sq.ft/US gallon at 16 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	3 hours	4 hours	18 hours	Extended ¹
25°C (77°F)	2 hours	3 hours	6 hours	Extended ¹
40°C (104°F)	1 hour	2.5 hours	4 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

All drying time data has been quoted at the typical thickness of 500 microns (20 mils) d.f.t. Minimum overcoating intervals with approved topcoats is a minimum 24 hours.

REGULATORY DATA

Flash Point (Typical)	>100°C (>212°F)	
Product Weight	1.46 kg/l (12.2 lb/gal)	
VOC	0 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)
	23 g/lt	EU Product Directive (Council Directive 2004/42/CE)

See Product Characteristics section for further details

Protective Coatings

Water Borne Intumescent Coating

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Primed Steelwork

Interchar 1260 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interchar 1260 must be applied within the overcoating intervals specified (consult the Interchar 1260 Application Guidelines).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and a full coat of primer applied prior to overcoating with Interchar 1260.

Metallic Zinc Primed Surfaces

Interchar 1260 can be applied over approved epoxy metallic zinc primers, provided that these have been overcoated with an approved tie coat. Ensure that the primed surface is clean, dry and free from contamination prior to application of the Interchar 1260. Recommended tie coats are Intergard 269 or Intergard 276.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.39-0.54 mm (15-21 thou) Total output fluid pressure at spray tip not less than 175 kg/cm ² (2489 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Air Spray (Conventional)	Not suitable	
Brush	Small areas only	Typically 2.0-7.0 mils (50-175 microns) can be achieved
Thinner	Not recommended	
Cleaner	Clean Water	
Work Stoppages	Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with clean water. Do not use organic solvents. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning after storage.	
Clean Up	Clean all equipment immediately after use with clean water. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Water Borne Intumescent Coating

PRODUCT CHARACTERISTICS

The detailed Interchar 1260 Application Guidelines should be consulted prior to use.

Interchar 1260 must be protected from freezing at all times during storage and transport.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 10°C (50°F) and relative humidity less than 80%. Good air flow and ventilation should be maintained to improve drying and recoat properties and speed up the application. Application at temperatures below 10°C (50°F) will retard drying and extend overcoatings intervals, as will higher humidities.

Discard frozen Interchar 1260 in accordance with local disposal regulations. Do not thaw frozen material and apply.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In line with good painting practice, application should not take place in conditions which are deteriorating, e.g. the temperature is falling or there is a risk of condensation forming.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Care must be taken not to over-apply on areas such as internal angles, corners, edges, etc.

The finished appearance of Interchar 1260 is dependent upon application method. For visible areas spray application is recommended. Higher decorative finishes may require additional preparation before application of topcoats; please see Application Guidelines for further information. Topcoats are not necessary for in environments classified as ISO 12944-2 C1 and may be specified purely for decorative reasons.

Interchar 1260 (whether sealed or not) should be protected from pooling or running water.

Interchar 1260 is intended for application to internal steelwork in unexposed conditions. Consult International Paint for the appropriate primer and topcoat systems for the specified interior environment.

Interchar 1260 is not designed for frequent water immersion/soaking.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Interchar 1260:

Intercryl 525	Intergard 251
Intergard 269	Intergard 276
Interprime 306	

Interchar 1260 may also be applied over Interzinc 42 and 52 providing a suitable tie coat is also used; please see Surface Preparation section.

The following topcoats are recommended for Interchar 1260:

Intercryl 525	Interthane 870
Intersheen 579	Interthane 990

There is a wider range of primers and topcoats which may be suitable for use with Interchar 1260; please contact International Protective Coatings for further information and assistance.

Water Borne Intumescent Coating

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		30.5 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Intumescent

PRODUCT DESCRIPTION

A single component, solvent borne, borate free, high solids, low VOC intumescent coating designed to provide fire protection to structural steelwork.

Independently tested at accredited laboratories to BS476 Parts 20-21, AS 1530.4-2005 and AS 4100, and third party assessed and certified.

INTENDED USES

To provide upto 60 minutes fire protection on 'I' sections beams, columns and hollow sections.

Suitable for both off-site and on-site application due to its ease of use, fast drying and handling properties. Can be used over a wide range of approved priming systems.

PRACTICAL INFORMATION FOR INTERCHAR 2060

Colour	White			
Gloss Level	Matt			
Volume Solids	75% ± 2% (measured according to ISO 3233 and ICF Method)			
Typical Thickness	350-750 microns (14-30 mils) dry equivalent to 467-1000 microns (18.7-40 mils) wet per coat			
Theoretical Coverage	1 m ² /litre at 750 microns d.f.t and stated volume solids 40 sq.ft/US gallon at 30 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	45 minutes	22 hours	8 hours ²	Extended ¹
15°C (59°F)	40 minutes	18 hours	6 hours ²	Extended ¹
25°C (77°F)	20 minutes	16 hours	4 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 2060 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for other topcoats). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

All drying time data has been quoted at the typical thickness of 750 microns (30 mils) d.f.t.

For application at ambient temperatures of 25°C (77°F) and above, a tropical grade is available. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical)	5°C (41°F)	
Product Weight	1.37 kg/l (11.4 lb/gal)	
VOC	230 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)
	290g/l	EU Product Directive (Council Directive 2004/42/CE)

Acrylic Intumescent

SURFACE PREPARATION

All surfaces to be coated should be clean and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Primed Surfaces

Interchar 2060 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be of normal appearance, dry and free from all contamination, and Interchar 2060 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC SP6, Abrasive Blasting, or SSPC SP11, Power Tool Cleaning) and patch primed prior to the application of Interchar 2060 .

Metallic Zinc Primed Surfaces

Interchar 2060 can be applied over approved epoxy metallic zinc primers. Ensure that the primed surface is clean, dry and free from contamination and zinc salts, prior to application of the Interchar 2060 . Ensure zinc primers are fully cured before overcoating. The use of a tie coat, typically Intergard 269 or Intergard 276, is recommended to prevent accumulation of zinc salts.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Recommended	Tip Range 0.48-0.59 mm (19-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Brush	Suitable	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Not recommended	
Thinner	Not normally required	
Cleaner	International GTA007	
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic Intumescent

PRODUCT CHARACTERISTICS

The detailed Interchar 2060 Application Guidelines should be consulted prior to use.

Required film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Low or high temperatures may require specific application techniques to achieve maximum film build. Over-application of Interchar 2060 will extend both the minimum overcoating periods and handling times.

For optimum drying properties when applying Interchar 2060 at dry film thicknesses above 750µm (30 mils), it is recommended that two coats are applied, observing the minimum overcoating times between coats. It is possible to apply Interchar 2060 up to 1500microns (80 mils) dry film thickness in a single coat, however, drying, hardness development and handling times will be longer.

When applying Interchar 2060 by brush, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 5°C (41°F) and relative humidity less than 85%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interchar 2060 in confined spaces ensure adequate ventilation.

The finished appearance of Interchar 2060 is dependent on application method. For visible areas spray application is preferred. High decorative finishes may require additional preparation before application of sealer coat. The final surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

Interchar 2060 (whether topcoated or not) should be protected from pooling or running water. Interchar 2060 is not designed for frequent water immersion/soaking.

A version with greater water resistance is available which allows for Interchar 2060 to remain untopcoated for up to 6 months exterior exposure provided there is no pooled/heavy running water, or frequent high humidity conditions.

Tropical Grade

For improved product workability in warmer climates, a tropical grade version is available. Interchar 2060 Tropical Grade has the following characteristics. Volume Solids 75%±2% ; VOC 300g/l, Flash Point 27°C (81°F).

Drying Times:

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
25°C (77°F)	1 hour	24 hours	8 hours ²	Extended ¹
40°C (104°F)	30 minutes	18 hours	6 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 2060 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for other topcoats). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

SYSTEMS COMPATIBILITY

Interchar 2060 has been tested as part of a coating system for use in fire situations over a wide range of approved priming systems. The following primers are approved for use with Interchar 2060

Intercure 200	Intercure 200HS
Intergard 251	Intergard 269
Interprime 306	Interzinc 42
Interseal 670HS	Interzinc 52

The following topcoats are approved for use with Interchar 2060

Intersheen 579	Interthane 870	Intercryl 525
Interthane 990	Interfine 878	Intersheen 54

Where a polysiloxane topcoat is envisaged, application of a tie coat over Interchar 2060 will be necessary; please consult the Application Guidelines for further information.

Note : In environmental exposure conditions other than internal, dry as per ISO 12944 Part 2, C1 classification, Interchar 2060 must always be suitably topcoated. Consult International Protective Coatings for more details

Acrylic Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar Application Guidelines

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		29.2 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Intumescent

PRODUCT DESCRIPTION

A single component, solvent borne, borate free, high solids, low VOC intumescent coating designed to provide fire protection to structural steelwork.

Independently tested at accredited laboratories to BS476 Parts 20-21 and third party assessed and certified.

INTENDED USES

To provide up to 2 hours fire protection on 'I' sections beams (including cellular beams), columns and hollow sections.

Suitable for both off-site and on-site application due to its ease of use, fast drying and handling properties. Can be used over a wide range of approved priming systems.

PRACTICAL INFORMATION FOR INTERCHAR 2090

Colour	White			
Gloss Level	Matt			
Volume Solids	75% ± 3% (measured according to ISO 3233 and ICF Method)			
Typical Thickness	300-1500 microns (12-60 mils) dry equivalent to 400-2000 microns (16-80 mils) wet Can be applied up to 1.5mm DFT in a single coat.			
Theoretical Coverage	1 m ² /litre at 750 microns d.f.t and stated volume solids 40 sq.ft/US gallon at 30 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	60 minutes	24 hours	8 hours ²	Extended ¹
15°C (59°F)	40 minutes	20 hours	6 hours ²	Extended ¹
25°C (77°F)	30 minutes	16 hours	4 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 2090 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for other topcoats). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

All drying time data has been quoted at the typical thickness of 750 microns (30 mils) d.f.t.

For application at ambient temperatures of 25°C (77°F) and above, a tropical grade is available. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical)	4°C (39°F)		
Product Weight	1.38 kg/l (11.5 lb/gal)		
VOC	230 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
	286 g/l	EU Product Directive (Council Directive 2004/42/EC)	

See Product Characteristics section for further details

Protective Coatings

Acrylic Intumescent

SURFACE PREPARATION

All steel surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504-2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Primed Surfaces

Interchar 2090 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interchar 2090 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC SP6 Abrasive Blasting or SSPC SP11, Power Tool Cleaning) and patch primed prior to the application of the product.

Consult the Interchar 2090 Application Guidelines for more details regarding surface preparation.

Metallic Zinc Primed Surfaces

Interchar 2090 can be applied over approved epoxy metallic zinc primers. Ensure that the primed surface is clean, dry and free from contamination and zinc salts, prior to application of the Interchar 2090. Ensure zinc primers are fully cured before overcoating. The use of a tie coat, typically Intergard 269 or Intergard 276, is recommended to prevent accumulation of zinc salts.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Airless Spray	Recommended	Tip Range 0.48-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)
Air Spray (Pressure Pot)	Not recommended	
Thinner	Not normally required	
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic Intumescent

PRODUCT CHARACTERISTICS

The detailed Interchar Solvent Based Application Guidelines should be consulted prior to use.

Required film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. When applying Interchar 2090 by brush, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

For optimum drying properties when applying Interchar 2090 at dry film thicknesses above 750µm (30 mils), it is recommended that two coats are applied, observing the minimum overcoating times between coats. It is possible to apply Interchar 2090 up to 1500microns (80 mils) dry film thickness in a single coat, however, drying, hardness development and handling times will be longer. Time to handle will vary as a function of overall film thickness applied, humidity and ventilation rate.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 10°C (50°F) and relative humidity less than 85%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interchar 2090 in confined spaces ensure adequate ventilation.

The finished appearance of Interchar 2090 is dependent on application method. For visible areas spray application is preferred. High decorative finishes may require additional preparation before application of sealer coat. The final surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

Interchar 2090 (whether topcoated or not) should be protected from pooling or running water. Interchar 2090 is not designed for frequent water immersion/soaking.

The application of a sealer coat over Interchar 2090 must form a continuous film free of defects.

A version with greater water resistance is available which allows for Interchar 2090 to remain untopcoated for up to 6 months exterior exposure provided there is no pooled/heavy running water, or frequent high humidity conditions. Note; in environmental exposure conditions other than internal dry (C1, as defined in ISO29144 Part 2), Interchar 2090 must always be suitably tocoated. See Application Guidelines for further information.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Tropical Grade

For improved product workability in warmer climates, a tropical grade version is available. Interchar 2090 tropical grade has the following characteristics. Volume Solids 75%±3%; VOC 305g/l; Flash Point 27°C (81°F).

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
25°C (77°F)	60 minutes	24 hours	8 hours ²	Extended ¹
40°C (104°F)	30 minutes	16 hours	6 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Sealer coat should be applied as soon as possible after completion of the final coat of Interchar 2090 (minimum 2-4 hours for Intersheen 54 and 579; 24 hours for Interthane or Interfine sealers). However, d.f.t. must be checked to ensure that specified thickness has been achieved before any sealer coat is applied.

SYSTEMS COMPATIBILITY

The following primers are approved for use with Interchar 2090

Intercure 200HS	Intergard 251
Intergard 269	Intergard 276
Interprime 306	Interzinc 52

The following topcoats are approved for use with Interchar 2090

Intersheen 579	Interthane 990
----------------	----------------

Acrylic Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar Solvent Based Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		30 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Intumescent

PRODUCT DESCRIPTION A single pack, high solids, low VOC intumescent filler.

INTENDED USES Designed for repairing small areas of mechanically damaged single pack Interchar intumescent coatings.

PRACTICAL INFORMATION FOR INTERCHAR 2200

Colour	White			
Gloss Level	Matt			
Volume Solids	85% ± 3% (measured according to ISO 3233)			
Typical Thickness	1000-2000 microns (40-80 mils) dry equivalent to 1176-2353 microns (47-94.1 mils) wet			
Theoretical Coverage	0.60 m ² /litre at 1500 microns d.f.t and stated volume solids 23 sq.ft/US gallon at 60 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Trowel, Knife			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	1 hour	72 hours	24 hours ²	Extended ¹
15°C (59°F)	1 hour	60 hours	24 hours ²	Extended ¹
25°C (77°F)	1 hour	48 hours	24 hours ²	Extended ¹
40°C (104°F)	1 hour	24 hours	24 hours ²	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² Interchar 2200 can be over-coated with recommended topcoats after 24 hours.

All drying time data has been quoted at typical thickness of 1mm DFT. At higher DFT drying times will be longer.

REGULATORY DATA

Flash Point (Typical)	26°C (79°F)	
Product Weight	1.45 kg/l (12.1 lb/gal)	
VOC	1.96 lb/gal (235 g/lit)	Theoretical value
	163 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Acrylic Intumescent

SURFACE PREPARATION

Remove all loose and damaged Interchar Intumescent coating back to a sound edge.

Any damage to the primed substrate should be repaired with re-priming as necessary with an approved primer prior to application of Interchar 2200

All surfaces to be coated should be clean, dry and free from contamination immediately prior to application.

APPLICATION

Mixing	Remove membrane on surface and mix filler thoroughly before use.
Airless Spray	Not recommended
Air Spray (Pressure Pot)	Not recommended
Brush	Not recommended
Roller	Not recommended
Trowel	Recommended
Thinner	Not normally required
Cleaner	International GTA007
Work Stoppages	All unused material should be stored in tightly closed containers. Partially filled used containers may show surface skinning and/or a viscosity increase of the material after storage. Replace membrane to reduce surface skinning.
Clean Up	Clean all equipment immediately after use with International GTA007. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Acrylic Intumescent

PRODUCT CHARACTERISTICS

The detailed Interchar 2200 Application Guidelines should be consulted prior to use.

Interchar 2200 is suitable for repair of both water-based and solvent-based single-pack Interchar intumescent products.

For optimum drying properties when applying Interchar 2200 at dry film thicknesses above 1mm (40 mils), it is recommended that multi coats are applied, observing the minimum overcoating times between coats. It is possible to apply Interchar 2200 at up to 2mm (80 mils) in a single coat; however, hardness development and drying/handling times will be longer.

For optimum application and drying characteristics, the air and substrate temperature should be greater than 5°C (41°F) and relative humidity less than 85%. Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interchar 2200 in confined spaces ensure adequate ventilation.

Interchar 2200 (whether topcoated or not) should be protected from pooling or running water and is not designed for frequent water immersion or soaking.

Drying times at different thicknesses:

Dry film thickness	Hard dry time		
	10°C (50°F)	25°C (77°F)	40°C (104°F)
0.5	10 hours	8 hours	6 hours
1.0	72 hours	48 hours	24 hours
2.0	10 days	7 days	3 days

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are approved for use with Interchar 2200:

Intercure 200	Intercure 200HS
Intergard 251	Intergard 269
Interprime 306	Interseal 670HS
Interzinc 42	Interzinc 52

The following topcoats are approved for use with Interchar 2200:

Intercryl 525	Interfine 878
Intersheen 54	Intersheen 579
Interthane 870	Interthane 990

Where a polysiloxane topcoat is envisaged, application of a tie coat, for example Intergard 269 over the Interchar 2200 will be necessary; please consult the Interchar 2200 Application Guidelines for further information.

Note : In environmental exposure conditions other than internal, dry as per ISO 12944 Part 2, C1 classification, Interchar 2200 must always be suitably topcoated. Consult International Protective Coatings for more details

Acrylic Intumescent

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interchar 2200 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		
		Vol	Pack
	2.5 litre	3.21 kg	2.5 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	2.5 litre	3.21 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Water Based Acrylic

PRODUCT DESCRIPTION A VOC compliant, single component, water based anti-corrosive primer/finish based on weather resistant acrylic copolymer technology.

INTENDED USES Designed for use as a primer/finish for structural steel, in a wide variety of general industrial environments of light to moderate corrosivity, including on bridges, commercial buildings, infrastructure and manufacturing plants.

Exhibits excellent colour and gloss retention.

PRACTICAL INFORMATION FOR INTERCRYL 525

Colour Wide range via the Chromascan system

Gloss Level Eggshell

Volume Solids 47% ± 2%

Typical Thickness 50-100 microns (2-4 mils) dry equivalent to 106-213 microns (4.2-8.5 mils) wet

Theoretical Coverage 6.30 m²/litre at 75 microns d.f.t and stated volume solids
251 sq.ft/US gallon at 3 mils d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	2 hours	6 hours	16 hours	Extended ¹
15°C (59°F)	1 hour	3 hours	12 hours	Extended ¹
25°C (77°F)	30 minutes	2 hours	8 hours	Extended ¹
40°C (104°F)	15 minutes	1 hour	4 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Drying times are dependent upon ambient conditions. The figures quoted above have been determined at the quoted temperature and 50% relative humidity.

REGULATORY DATA

Flash Point (Typical) >101°C (>214°F)

Product Weight 1.31 kg/l (10.9 lb/gal)

VOC 14 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Water Based Acrylic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Strict adherence to all cleanliness standards is essential for application of water based coatings.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercryl 525, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Primed Surfaces

Intercryl 525 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intercryl 525 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intercryl 525.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 175 kg/cm ² (2489 p.s.i.)	
Air Spray (Pressure Pot)	Suitable	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Brush	Suitable	Typically 50 microns (2.0 mils) can be achieved	
Roller	Suitable	Typically 50 microns (2.0 mils) can be achieved	
Thinner	Clean Water or International GTA991	Do not thin more than allowed by local environmental legislation	
Cleaner	Clean Water or International GTA991		
Work Stoppages	Thoroughly flush all equipment with International GTA991. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with clean water followed by International GTA991. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Water Based Acrylic

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

Application by other methods, e.g. brush or roller, may require more than one coat and should only be used for small areas or touch-up work.

As with all water borne coatings careful control of application conditions is required to ensure good performance.

The following basic parameters must be adhered to:

Intercryl 525 must be protected from freezing at all times during storage.

The minimum steel temperature for application must be above 10°C (50°F), and be at least 3°C (5°F) above dew point.

The relative humidity should be lower than 70% otherwise drying and overcoating times will be severely extended.

Good airflow is essential around the object being painted [minimum air speed 0.1m/sec (4 inches/sec)]. Minor areas which are difficult to ventilate should be brush applied to prevent over-application.

Application below the minimum film forming temperature (M.F.F.T.) of the coating and/or poor ventilation will result in poor film coalescence and a powdery cracked film which will require removal and re-application.

For brush and roller application, and in some colours, two coats of Intercryl 525 may be required to give uniform coverage.

Although Intercryl 525 is slightly thermoplastic above 50°C (120°F) the polymer system is stable to continuous temperatures of 150°C (300°F) with intermittent temperatures of 200°C (390°F).

Intercryl 525 must be fully cured before exposing to ponding water otherwise adhesion loss can occur.

This product is not intended for use in aggressive, corrosive environments, or on heavily pitted or contaminated steel.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

This product is primarily designed as a primer/finish for a water based acrylic paint system. However, it can also be used for application as a semi gloss finish on a wide variety of water based and solvent based primers.

Typical water based primers:

InterH2O 280	InterH2O 499
InterH2O 401	

Typical solvent based primers:

Intergard 242	Interzinc 12
Intergard 251	Interzinc 22
Intergard 269	Interzinc 42
Interplate 11	Interzinc 52
Interplate 240	Interzinc 315
Interplate 398	

Typical water based topcoats:

Intercryl 530	Intercryl 700
---------------	---------------

For other suitable primers/topcoats, consult International Protective Coatings.

Water Based Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	28.1 kg	
	Non Hazardous		
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from freezing at all times during storage.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

Intercure 99 polyaspartic technology is applied as a single coat at 150-250 microns (6-10 mils) direct-to-metal using standard application equipment, reducing application time and labour costs compared to two coat applications in moderately corrosive environments (up to C3, ISO 12944-2).

Intercure 99 is a low VOC, high solids, rapid cure primer/finish, offering excellent anticorrosive protection and long term colour and gloss durability – a combination that cannot be achieved with alternative fast cure, single coat primer finishes.

Intercure 99 may also be specified as a high build, durable intermediate/finish over approved anti-corrosive primers for more aggressive environments, i.e. ISO 12944 C4 and C5M.

INTENDED USES

Intercure 99 is intended for use as a single coat high performance finish. For structural steel applications, a reduced number of coats aids in yard throughput and productivity. Rapid cure and early handling properties make it ideal for applications such as wind towers, transformers, mining equipment and pumps where productivity and drying space are of prime importance.

PRACTICAL INFORMATION FOR INTERCURE 99

Colour	Wide range via the Chromascan system			
Gloss Level	Gloss			
Volume Solids	80% ± 3%			
Typical Thickness	150-250 microns (6-10 mils) dry equivalent to 188-313 microns (7.5-12.5 mils) wet			
Theoretical Coverage	4.60 m ² /litre at 175 microns d.f.t and stated volume solids 183 sq.ft/US gallon at 7 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	1.5 hours	4 hours ¹	4 hours	Extended ²
15°C (59°F)	60 minutes	3 hours ¹	3 hours	Extended ²
25°C (77°F)	30 minutes	1.5 hours ¹	1.5 hours	Extended ²
40°C (104°F)	30 minutes	1.5 hours ¹	1.5 hours	Extended ²

¹ Drying times quoted relate to 50% R.H. Increased humidity may result in faster drying times.

² See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 50°C (122°F); Part B 158°C (316°F); Mixed 51°C (124°F)	
Product Weight	1.39 kg/l (11.6 lb/gal)	
VOC	1.83 lb/gal (220 g/lit)	EPA Method 24
	165 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Direct to Metal Polyaspartic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 99, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Primed Surfaces

Intercure 99 may be applied over approved anti-corrosive primers in some circumstances; please consult International Protective Coatings for further advice.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1)	Agitate Base (Part A) with a power agitator.		
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	2 hours	1.5 hours	45 minutes	45 minutes
Airless Spray	Recommended	Tip Range 0.38-0.48 mm (15-19 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Suitable - small areas only	Typically 75-125 microns (3.0-5.0 mils) can be achieved		
Roller	Suitable - small areas only			
Thinner	International GTA713 (or International GTA056)	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.		
Cleaner	International GTA713 (or International GTA056)	Do not use alternative cleaners.		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Direct to Metal Polyaspartic

PRODUCT CHARACTERISTICS

The detailed Intercure 99 Application Guidelines should be consulted prior to use.

During the spray application of Intercure 99 at high relative humidity (>85%), a reduction in the quoted pot life time of the mixed material may occur. This can be resolved by placing sufficient solvent to cover the surface of the material in the can. The addition of approx 100 mls of GTA713 or GTA056 per 20 litre mixed unit should suffice.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

For tinted colours, a 5 minute induction time is recommended to fully develop colour. Failure to allow induction, particularly at low temperatures, may result in inconsistency of the finished shade.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intercure 99 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Care should be exercised to avoid application in excess of 350 microns (14 mils) dry film thickness.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. It is recommended that relative humidity should not exceed 85% during application and cure.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Application at humidities greater than 50% may result in faster drying times.

When applying Intercure 99 in confined spaces ensure adequate ventilation.

Intercure 99 is not designed for continuous water immersion.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intercure 99 may be applied direct to metal for atmospheric exposure in environments up to and including C3 (as defined in ISO12944 Part 2). When using Intercure 99 in atmospheric environments classed as C4 or C5, a recommended primer must be used.

Please consult International Protective Coatings for the latest technical advice.

Direct to Metal Polyaspartic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Intercure 99 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	24.8 kg		5.1 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Rapid Recoat Epoxy

PRODUCT DESCRIPTION

A two component epoxy zinc phosphate/micaceous iron oxide primer, formulated on proprietary polymer technology, which provides rapid cure and overcoating even under low temperature conditions.

A high solids, low VOC product.

INTENDED USES

As a primer for steelwork intended for use in a wide range of aggressive environments, including offshore, chemical and petrochemical plants, industrial buildings, pulp and paper mills, power plants and bridges.

Suitable for overcoating within 3 hours in most climatic conditions hence speeding up production and throughput in fabrication shops.

Can also be used on site as a rapid curing, maintenance coating.

PRACTICAL INFORMATION FOR INTERCURE 200

Colour	Limited colour range available
Gloss Level	Matt
Volume Solids	67%
Typical Thickness	75-100 microns (3-4 mils) dry equivalent to 112-149 microns (4.5-6 mils) wet
Theoretical Coverage	8.90 m ² /litre at 75 microns d.f.t and stated volume solids 358 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	40 minutes	4.5 hours	3 hours	Extended ¹
15°C (59°F)	30 minutes	3 hours	2 hours	Extended ¹
25°C (77°F)	20 minutes	2 hours	1 hour	Extended ¹
40°C (104°F)	15 minutes	30 minutes	30 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical) Part A 27°C (81°F); Part B 28°C (82°F); Mixed 27°C (81°F)

Product Weight 1.60 kg/l (13.4 lb/gal)

VOC 2.67 lb/gal (320 g/lit) EPA Method 24
213 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Rapid Recoat Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Grit Blast Cleaning

Abrasive grit blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 200, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Intercure 200 is suitable for application to grit blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Shop Primed Steel

Weld seams and damaged areas should be grit blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall grit sweep blasting may be necessary.

If the shop primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to application of Intercure 200.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1)	Agitate Base (Part A) with a power agitator.		
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 6 hours	15°C (59°F) 3 hours	25°C (77°F) 2 hours	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415) Do not thin more than allowed by local environmental legislation			
Cleaner	International GTA220 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA220. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Rapid Recoat Epoxy

PRODUCT CHARACTERISTICS

Intercure 200 is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6 months exposure provided it is adequately cleaned and any areas of mechanical damage repaired.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thickness. When using as a blast holding primer avoid over-application as thick films may suffer from cohesive film splitting if subsequent coats are also over-applied.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Intercure 200 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

This product is not available in pale and pastel shades due to a tendency to discolour rapidly. Additionally, in common with all epoxies Intercure 200 will chalk on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

In C1 and C2 corrosive environments (ISO 12944) it is possible to repair weld seams and small damaged areas via hand or power tool cleaning. Consult International Protective Coatings for more information.

Intercure 200 is not intended for use as a primer for steelwork which may be subjected to immersion conditions.

Intercure 200 can also be used as a primer for substrates other than blasted steel, e.g. stainless steel, alloys, etc. Consult International Protective Coatings for further details.

Absolute measured adhesion of topcoats to aged Intercure 200 is less than that to fresh material, however, it is adequate for the specified end use.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intercure 200 will normally be applied to suitably prepared steel, e.g. blast cleaned. However, if necessary, application over prefabrication blast primers can be performed. Consult International Protective Coatings for further details.

The following primers are recommended for Intercure 200:

Interzinc 22 (mist coat or tie coat may be required)*

The following topcoats/intermediates are recommended for Intercure 200:

Intercure 420	Interseal 670HS
Interfine 979	Interthane 990
Intergard 475HS	Interzone 1000
Intergard 740	Interzone 954

For other suitable topcoats/intermediates, consult International Protective Coatings.

See relevant product data sheet for details.

Rapid Recoat Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	4 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	29.1 kg		5.3 kg	
	4 US gal	49.8 lb		8.8 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Rapid Recoat Epoxy

PRODUCT DESCRIPTION A two component, high solids, low VOC, epoxy zinc phosphate/micaceous iron oxide primer offering excellent barrier protection, low temperature cure and rapid overcoating properties.

INTENDED USES As a primer for steelwork intended for use in a wide range of environmental conditions including offshore, chemical and petrochemical plants, industrial buildings, pulp and paper mills, power plants and bridges.

Suitable for overcoating within 7 hours in most climatic conditions hence speeding up production and throughput in fabrication shops.

Provides quick cure even at low temperatures often encountered in maintenance painting.

PRACTICAL INFORMATION FOR INTERCURE 200HS

Colour Sand, Grey, Red

Gloss Level Matt

Volume Solids 80%

Typical Thickness 150-200 microns (6-8 mils) dry equivalent to 188-250 microns (7.5-10 mils) wet

Theoretical Coverage 5.30 m²/litre at 150 microns d.f.t and stated volume solids
214 sq.ft/US gallon at 6 mils d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	4 hours	10 hours	7 hours	Extended ¹
15°C (59°F)	3 hours	6 hours	4 hours	Extended ¹
25°C (77°F)	2 hours	3 hours	3 hours	Extended ¹
40°C (104°F)	30 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 38°C (100°F); Part B 27°C (81°F); Mixed 33°C (91°F)

Product Weight 1.67 kg/l (13.9 lb/gal)

VOC 1.91 lb/gal (230 g/lit) 139 g/kg
EPA Method 24
EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Rapid Recoat Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 200HS, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Intercure 200HS is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

A sharp, angular profile of 50-75µm (2-3 mils) should be achieved.

Shop Primed Steel

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 150 minutes	15°C (59°F) 90 minutes	25°C (77°F) 1 hour	40°C (104°F) 20 minutes
Airless Spray	Recommended	Tip Range 0.45-0.58 mm (18-23 thou) Total output fluid pressure at spray tip not less than 170 kg/cm ² (2417 p.s.i.)		
Air Spray (Pressure Pot)	Recommended (5% thinning required)	Gun	DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E	
Brush	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved		
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA220 (or GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA220. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Rapid Recoat Epoxy

PRODUCT CHARACTERISTICS

Intercure 200HS is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thickness.

Surface temperature must always be a minimum of 3°C above dew point.

This product must only be thinned using recommended International GTA220 thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

At low temperatures, it may be necessary to thin Intercure 200HS to enable airless spray application to be performed. Normally 2% thinning (by volume) with International GTA220 will be satisfactory for this purpose.

Intercure 200HS is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

This product is not available in pale and pastel shades due to a tendency to discolour rapidly. Additionally, in common with all epoxies Intercure 200HS will chalk on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intercure 200HS is not intended for use as a primer for steelwork which may be subjected to continuous immersion conditions.

Intercure 200HS can also be used as a primer for substrates other than blasted steel, e.g. stainless steel, alloys, etc. Consult International Protective Coatings for further details.

Absolute measured adhesion of topcoats to aged Intercure 200HS is less than that to fresh material, however, it is adequate for the specified end use.

Over-application of Intercure 200HS will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Excessive over application of material on areas such as poorly prepared welds may result in long term stress cracking and so early failure.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intercure 200HS will normally be applied to suitably prepared steel, e.g. blast cleaned. However, if necessary, application over prefabrication blast primers can be performed. Consult International Protective Coatings for further details.

Recommended topcoats/intermediates are:

Intercure 420HS	Interfine 629HS
Interfine 878	Interfine 979
Intergard 345	Intergard 475HS
Intergard 410	Intergard 740
Interseal 670HS	Interthane 870
Interthane 990	Interzone 1000
Interzone 505	Interzone 954

For other suitable topcoats/intermediates, consult International Protective Coatings.

Rapid Recoat Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	4 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	30.5 kg		5.4 kg	
	4 US gal	47.3 lb		8.1 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, high solids, low VOC, epoxy zinc phosphate/micaceous iron oxide primer offering excellent barrier protection, low temperature cure and rapid overcoating properties.

Pigmented with zinc phosphate anti-corrosive pigment to comply with the requirements of BS5493:1977

INTENDED USES

As a primer for steelwork intended for use in a wide range of environmental conditions including offshore, chemical and petrochemical plants, industrial buildings, pulp and paper mills, power plants and bridges.

The rapid curing and overcoating properties of Intercure 324 provide production flexibility, making this product suitable for use both in new construction and on site as an industrial maintenance coating.

PRACTICAL INFORMATION FOR INTERCURE 324

Colour	Sand
Gloss Level	Matt
Volume Solids	72%
Typical Thickness	75-100 microns (3-4 mils) dry equivalent to 104-139 microns (4.2-5.6 mils) wet
Theoretical Coverage	9.60 m ² /litre at 75 microns d.f.t and stated volume solids 385 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	3 hours	10 hours	7 hours	Extended ¹
15°C (59°F)	2 hours	6 hours	4 hours	Extended ¹
25°C (77°F)	1.5 hours	3.5 hours	3 hours	Extended ¹
40°C (104°F)	45 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point	Part A 38°C (100°F); Part B 27°C (81°F); Mixed 33°C (91°F)	
Product Weight	1.62 kg/l (13.5 lb/gal)	
VOC	200 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 324, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Intercure 324 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Shop Primed Steel

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	3.0 part(s) : 1.0 part(s) by volume		
Working Pot Life	5°C (41°F) 90 minutes	15°C (59°F) 90 minutes	25°C (77°F) 40°C (104°F) 90 minutes 45 minutes
Airless Spray	Recommended	Tip Range 0.38-0.58 mm (15-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended (5% thinning required)	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA822		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Epoxy

PRODUCT CHARACTERISTICS

Intercure 324 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product must only be thinned using recommended International GTA220 thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thickness. When using as a blast holding primer avoid over-application as thick films may suffer from cohesive film splitting if subsequent coats are also over-applied.

Over-application of Intercure 324 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6 months exposure provided it is adequately cleaned and any areas of mechanical damage repaired.

Absolute measured adhesion of topcoats to aged Intercure 324 is less than that to fresh material, however, it is adequate for the specified end use.

Intercure 324 is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

Intercure 324 is not intended for use as a primer for steelwork which may be subjected to continuous immersion conditions.

This product is not available in pale and pastel shades due to a tendency to discolour rapidly. Additionally, in common with all epoxies Intercure 324 will chalk on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intercure 324 can also be used as a primer for substrates other than blasted steel, e.g. stainless steel, alloys, etc. Consult International Protective Coatings for further details.

This product has the following specification approvals:

- BS5493:1977 KP1A
- UK Department of Transport Item No.111

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intercure 324 will normally be applied to suitably prepared steel, e.g. blast cleaned. However, if necessary, application over prefabrication blast primers can be performed. Consult International Protective Coatings for further details.

Recommended topcoats/intermediates are:

Intercure 384	Intergard 740
Intercure 420HS	Interseal 670HS
Intercure 422	Interthane 870
Interfine 629HS	Interthane 990
Intergard 410	Interzone 505
Intergard 475HS	Interzone 954
Intergard 540	Interzone 1000

For other suitable topcoats/intermediates, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
		29.6 kg		5.36 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 01/12/2011

Copyright © AkzoNobel, 01/12/2011.

 International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, high solids, low VOC epoxy micaceous iron oxide intermediate coating offering excellent barrier protection, low temperature cure and rapid overcoating properties.

Pigmented with micaceous iron oxide to comply with the requirements of BS5493:1977

INTENDED USES

As a high build intermediate to provide excellent barrier protection as part of a high performance system in aggressive environments including offshore structures, bridges, chemical and petrochemical plants and power stations.

The incorporation of plate-like micaceous iron oxide pigment both increases the barrier effect and improves long term overcoating properties of the system making this material ideally suitable for application in the fabrication shop, prior to shipping, with final overcoating at site.

The rapid curing and overcoating properties of Intercure 384 provide production flexibility, making this product suitable for use both in new construction and on site as a maintenance coating.

PRACTICAL INFORMATION FOR INTERCURE 384

Colour	Silver Grey MIO
Gloss Level	Matt
Volume Solids	72%
Typical Thickness	125-175 microns (5-7 mils) dry equivalent to 174-243 microns (7-9.7 mils) wet
Theoretical Coverage	5.80 m ² /litre at 125 microns d.f.t and stated volume solids 231 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	4 hours	14 hours	7 hours	Extended ¹
15°C (59°F)	2.5 hours	8 hours	4 hours	Extended ¹
25°C (77°F)	2.5 hours	3.5 hours	3.5 hours	Extended ¹
40°C (104°F)	45 minutes	1.5 hours	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 37°C (99°F); Part B 27°C (81°F); Mixed 33°C (91°F)

Product Weight 1.79 kg/l (14.9 lb/gal)

VOC 169 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 384, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Shop Primed Steel

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intercure 384. Ensure zinc primers are fully cured before overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	3.00 part(s) : 1.00 part(s) by volume		
Working Pot Life	5°C (41°F) 90 minutes	15°C (59°F) 90 minutes	25°C (77°F) 40°C (104°F) 60 minutes 30 minutes
Airless Spray	Recommended	Tip Range 0.38-0.58 mm (15-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended (5% thinning required)	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved	
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA822		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Epoxy

PRODUCT CHARACTERISTICS

Intercure 384 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

This product must only be thinned using recommended International GTA220 thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Over-application of Intercure 384 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Absolute measured adhesion of topcoats to aged Intercure 384 is less than that to fresh material, however, it is adequate for the specified end use.

This product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

In common with all epoxies Intercure 384 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

As with all products with high micaceous iron oxide levels, only relatively dark colours can be formulated, consequently with some colours of thin film finishes two coats may be needed to give good coverage.

Intercure 384 is not designed for continuous water immersion.

This product has the following specification approvals:

- BS5493:1977 KUID & KF1F
- UK Department of Transport Item No.112

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Please consult International Protective Coatings for specific information regarding application to prefabrication primers.

The following primers are recommended for Intercure 384:

Intercure 200HS	Interzinc 12 - mist coat may be required
Intercure 324	Interzinc 22 - mist coat may be required
Intercure 202	Interzinc 42
Intergard 251	Interzinc 52
Intergard 269	Interzinc 135
	Interzinc 315

The following topcoats are recommended for Intercure 384:

Interfine 629HS
Intergard 740
Interthane 990

For other suitable topcoats/intermediates, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg		kg	
	20 litre	32.8		5.36	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Rapid Recoat Epoxy

PRODUCT DESCRIPTION A two component, high solids, low VOC epoxy micaceous iron oxide coating formulated on proprietary polymer technology which provides rapid cure and overcoating even under low temperature conditions.

INTENDED USES As a high build intermediate to provide excellent barrier protection as part of a high performance system suitable for use in aggressive environments including offshore, bridges, chemical and petrochemical plants, power stations, pulp and paper mills and industrial building.

Can be used as a barrier coating applied direct to steel where the environment is non aggressive.

The incorporation of plate-like micaceous iron oxide pigment both increases the barrier effect and improves long term overcoating properties of the system making this material ideally suitable for application in the fabrication shop, prior to shipping, with final overcoating at site.

The rapid curing and overcoating properties of Intercure 420 provide production flexibility, making this product suitable for use both in new construction and on site as a maintenance coating.

PRACTICAL INFORMATION FOR INTERCURE 420

Colour	Natural MIO, Silver Grey, Light Grey			
Gloss Level	Matt			
Volume Solids	70%			
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 143-214 microns (5.7-8.6 mils) wet			
Theoretical Coverage	5.60 m ² /litre at 125 microns d.f.t and stated volume solids 225 sq.ft/US gallon at 5 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush, Roller			
Drying Time				
			Overcoating Interval with recommended topcoats	
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	75 minutes	7 hours	5 hours	Extended ¹
15°C (59°F)	50 minutes	4 hours	3 hours	Extended ¹
25°C (77°F)	40 minutes	2 hours	2 hours	Extended ¹
40°C (104°F)	30 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point	Part A 29°C (84°F); Part B 26°C (79°F); Mixed 27°C (81°F)		
Product Weight	1.63 kg/l (13.6 lb/gal)		
VOC	2.75 lb/gal (330 g/l) 201 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Rapid Recoat Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Grit Blast Cleaning

Abrasive grit blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 420, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Primed Surfaces

All suitable primers for use under Intercure 420 should be applied over grit blast cleaned surfaces to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Shop Primed Surfaces

Weld seams and damaged areas should be grit blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall grit sweep blasting may be necessary.

If the shop primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to application of Intercure 420.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intercure 420. Ensure zinc primers are fully cured before overcoating.

If the zinc primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to application of Intercure 420.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 8 hours	15°C (59°F) 4 hours	25°C (77°F) 2 hours	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Rapid Recoat Epoxy

PRODUCT CHARACTERISTICS

Low Temperature Curing

Intercure 420 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Intercure 420 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

This product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

As with all products with high micaceous iron oxide levels, only relatively dark colours can be formulated, consequently with some colours of thin film finishes two coats may be needed to give good coverage.

Absolute measured adhesion of topcoats to aged Intercure 420 is less than that to fresh material, however, it is adequate for the specified end use.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Please consult International Protective Coatings for specific information regarding application to prefabrication primers.

The following primers are recommended for Intercure 420:

- Intercure 200
- Intergard 251
- Intergard 269
- Interzinc 22 (mist coat or tie coat may be required)*
- Interzinc 52
- Interzinc 315

The following topcoats are recommended for Intercure 420:

- Interfine 629HS
- Intergard 740
- Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

See relevant product data sheet for details.

Rapid Recoat Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	4 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
	20 litre	29.5 kg		5.2 kg	
	4 US gal	49.4 lb		8.8 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 01/12/2011

Copyright © AkzoNobel, 01/12/2011.

 International, International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast drying polyaspartic gloss primer/finish coating.

Intercure 3240G provides improved productivity at ambient temperature application whilst combining the anti-corrosive performance of epoxy coatings and high aesthetics of UV durable topcoats in a single coat application.

Intercure 3240G is applied as a single coat direct to correctly prepared substrates using manual mix (single leg) or automatic mix (plural leg) application equipment, reducing application time, energy consumption and labour costs when compared to two coat applications, or single coat applications which require force drying at high temperature.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Intercure 3240G is particularly suited for use as a rapid drying system for fast handling times and maximizing production throughput at 20-25°C without the need for force drying at higher temperatures. This contributes to lower energy consumption in OEM fabrication and painting facilities.

The main features of Intercure 3240G are:

- Single coat application with fast handling times
- Good adhesion properties over correctly prepared substrates
- Rapid cure at 25°C to provide energy cost savings
- High solids and low VOC emissions
- Eliminates the need for costly baking ovens or solvent burners

PRACTICAL INFORMATION FOR INTERCURE 3240G

Colour	Colours available on request
Gloss Level	70-80 gloss units at 60° angle
Volume Solids	84% ± 2%
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 95-179 microns (3.8-7.2 mils) wet
Theoretical Coverage	7 m ² /litre at 120 microns d.f.t and stated volume solids 281 sq.ft/US gallon at 4.8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	60 minutes	3.5 hours ¹	*	*
15°C (59°F)	45 minutes	2.5 hours ¹	*	*
25°C (77°F)	30 minutes	2 hours ¹	*	*
40°C (104°F)	15 minutes	90 minutes ¹	*	*

¹ The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

* Intercure 3240G is designed as a single coat system.

REGULATORY DATA

Flash Point (Typical)	Part A 50°C (122°F); Part B 158°C (316°F); Mixed 52°C (126°F)	
Product Weight	1.53 kg/l (12.8 lb/gal)	
VOC	152 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Direct to Metal Polyaspartic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 3240G the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Abrasive blast clean in accordance with SSPC SP16 Brush-off Blast Cleaning of Non-Ferrous Metals.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	4 part(s) : 1 part(s) by volume		
Working Pot Life	5°C (41°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 40°C (104°F) 60 minutes 45 minutes
Plural Component Airless Spray	Recommended		
Airless Spray	Recommended	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment	
Brush	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.	
Cleaner	International GTA713	Do not use alternative cleaners.	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Direct to Metal Polyaspartic

PRODUCT CHARACTERISTICS

Intercure 3240G is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

During the spray application of Intercure 3240G at high relative humidity (>85%), a reduction in the quoted pot life time of the mixed material may occur. This can be resolved by placing sufficient solvent to cover the surface of the material in the can. The addition of approx 100 mls of GTA713 per 20 litre mixed unit should suffice.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. It is recommended that relative humidity should not exceed 85% during application and cure. Application at humidity greater than 50% may result in faster drying times.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Care should be exercised to avoid the application of dry film thicknesses in excess of 200 microns (8 mils). Higher film thicknesses than recommended will result in higher gloss appearance.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. When applying Intercure 3240G in confined spaces ensure adequate ventilation.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intercure 3240G is designed as a single coat system for application directly to correctly prepared substrates.

Direct to Metal Polyaspartic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	28 kg		5.1 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 08/06/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast drying polyaspartic high gloss primer/finish coating.

Intercure 3240HG provides improved productivity at ambient temperature application whilst combining the anti-corrosive performance of epoxy coatings and high aesthetics of UV durable topcoats in a single coat application.

Intercure 3240HG is applied as a single coat direct to correctly prepared substrates using manual mix (single leg) or automatic mix (plural leg) application equipment, reducing application time, energy consumption and labour costs when compared to two coat applications, or single coat applications which require force drying at high temperature.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Intercure 3240HG is particularly suited for use as a rapid drying system for fast handling times and maximizing production throughput at 20-25°C without the need for force drying at higher temperatures. This contributes to lower energy consumption in OEM fabrication and painting facilities.

The main features of Intercure 3240HG are:

- Single coat application with fast handling times
- Good adhesion properties over correctly prepared substrates
- Rapid cure at 25°C to provide energy cost savings
- High solids and low VOC emissions
- Eliminates the need for costly baking ovens or solvent burners

PRACTICAL INFORMATION FOR INTERCURE 3240HG

Colour	Colours available on request
Gloss Level	85+ gloss units at 60° angle
Volume Solids	84% ± 2%
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 95-179 microns (3.8-7.2 mils) wet
Theoretical Coverage	7 m ² /litre at 120 microns d.f.t and stated volume solids 281 sq.ft/US gallon at 4.8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	90 minutes	4 hours ¹	*	*
15°C (59°F)	45 minutes	3 hours ¹	*	*
25°C (77°F)	30 minutes	2 hours ¹	*	*
40°C (104°F)	30 minutes	90 minutes ¹	*	*

¹ The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

* Intercure 3240HG is designed as a single coat system.

REGULATORY DATA

Flash Point (Typical)	Part A 53°C (127°F); Part B 81°C (178°F); Mixed 55°C (131°F)	
Product Weight	1.36 kg/l (11.3 lb/gal)	
VOC	152 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Direct to Metal Polyaspartic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 3240HG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Abrasive blast clean in accordance with SSPC SP16 Brush-off Blast Cleaning of Non-Ferrous Metals.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	2 part(s) : 1 part(s) by volume		
Working Pot Life	5°C (41°F) 2.5 hours	15°C (59°F) 2 hours	25°C (77°F) 40°C (104°F) 75 minutes 60 minutes
Plural Component Airless Spray	Recommended		
Airless Spray	Recommended	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment	
Brush	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.	
Cleaner	International GTA713	Do not use alternative cleaners.	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Direct to Metal Polyaspartic

PRODUCT CHARACTERISTICS

Intercure 3240HG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

During the spray application of Intercure 3240HG at high relative humidity (>85%), a reduction in the quoted pot life time of the mixed material may occur. This can be resolved by placing sufficient solvent to cover the surface of the material in the can. The addition of approx 100 mls of GTA713 per 20 litre mixed unit should suffice.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. It is recommended that relative humidity should not exceed 85% during application and cure. Application at humidities greater than 50% may result in faster drying times.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Care should be exercised to avoid the application of dry film thicknesses in excess of 200 microns (8 mils). Higher film thicknesses than recommended will result in higher gloss appearance.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. When applying Intercure 3240HG in confined spaces ensure adequate ventilation.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intercure 3240HG is designed as a single coat system for application directly to correctly prepared substrates.

Direct to Metal Polyaspartic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15 litre	10 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	15 litre	17 kg		6.1 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 08/06/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast drying polyaspartic semi-gloss primer/finish coating.

Intercure 3240SG provides improved productivity at ambient temperature application whilst combining the anti-corrosive performance of epoxy coatings and high aesthetics of UV durable topcoats in a single coat application.

Intercure 3240SG is applied as a single coat direct to correctly prepared substrates using manual mix (single leg) or automatic mix (plural leg) application equipment, reducing application time, energy consumption and labour costs when compared to two coat applications, or single coat applications which require force drying at high temperature.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Intercure 3240SG is particularly suited for use as a rapid drying system for fast handling times and maximizing production throughput at 20-25°C without the need for force drying at higher temperatures. This contributes to lower energy consumption in OEM fabrication and painting facilities.

The main features of Intercure 3240SG are:

- Single coat application with fast handling times
- Good adhesion properties over correctly prepared substrates
- Rapid cure at 25°C to provide energy cost savings
- High solids and low VOC emissions
- Eliminates the need for costly baking ovens or solvent burners

PRACTICAL INFORMATION FOR INTERCURE 3240SG

Colour	Colours available on request
Gloss Level	50-60 gloss units at 60° angle
Volume Solids	84% ± 2%
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 95-179 microns (3.8-7.2 mils) wet
Theoretical Coverage	7 m ² /litre at 120 microns d.f.t and stated volume solids 281 sq.ft/US gallon at 4.8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	60 minutes	3.5 hours ¹	*	*
15°C (59°F)	45 minutes	2.5 hours ¹	*	*
25°C (77°F)	30 minutes	2 hours ¹	*	*
40°C (104°F)	15 minutes	90 minutes ¹	*	*

¹ The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

* Intercure 3240SG is designed as a single coat system.

REGULATORY DATA

Flash Point (Typical)	Part A 50°C (122°F); Part B 158°C (316°F); Mixed 52°C (126°F)	
Product Weight	1.53 kg/l (12.8 lb/gal)	
VOC	150 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Direct to Metal Polyaspartic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 3240SG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Abrasive blast clean in accordance with SSPC SP16 Brush-off Blast Cleaning of Non-Ferrous Metals.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 60 minutes	40°C (104°F) 45 minutes
Plural Component Airless Spray	Recommended			
Airless Spray	Recommended			
	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)			
	For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.			
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 80-100 microns (3.2-4.0 mils) can be achieved		
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.		
Cleaner	International GTA713	Do not use alternative cleaners.		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Direct to Metal Polyaspartic

PRODUCT CHARACTERISTICS

Intercure 3240SG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

During the spray application of Intercure 3240SG at high relative humidity (>85%), a reduction in the quoted pot life time of the mixed material may occur. This can be resolved by placing sufficient solvent to cover the surface of the material in the can. The addition of approx 100 mls of GTA713 per 20 litre mixed unit should suffice.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. It is recommended that relative humidity should not exceed 85% during application and cure. Application at humidities greater than 50% may result in faster drying times.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Care should be exercised to avoid the application of dry film thicknesses in excess of 200 microns (8 mils). Higher film thicknesses than recommended will result in higher gloss appearance.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. When applying Intercure 3240SG in confined spaces ensure adequate ventilation.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intercure 3240SG is designed as a single coat system for application directly to correctly prepared substrates.

Direct to Metal Polyaspartic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	28 kg		5.1 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 08/06/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

Intercure 4500 is a low VOC, high solids, rapid cure primer/finish, offering excellent anticorrosive protection and long term aesthetic durability. Based upon innovative polyaspartic resin technology, Intercure 4500 can be applied as a single coat direct-to-metal or over suitable primers for more corrosive environments using standard application equipment.

In replacing alternative two or three coat systems, Intercure 4500 offers corrosion protection and aesthetic performance in a reduced number of layers. Its rapid cure characteristics (even at low temperatures) help to further optimise application time and reduce labour costs.

INTENDED USES

Low temperature rapid cure and early hardness development make Intercure 4500 ideal for fabrication shops looking to reduce heating costs and improve productivity, or for facilities located in colder climates. Intercure 4500 can offer significant benefits to OEM manufacturers where production and process efficiency are of major importance.

PRACTICAL INFORMATION FOR INTERCURE 4500

Colour	Limited colour range available			
Gloss Level	Semi-gloss			
Volume Solids	77% ± 2%			
Typical Thickness	150-250 microns (6-10 mils) dry equivalent to 195-325 microns (7.8-13 mils) wet			
Theoretical Coverage	4.40 m ² /litre at 175 microns d.f.t and stated volume solids 176 sq.ft/US gallon at 7 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray			
Drying Time	Overcoating interval with self			
	Temperature	Touch Dry	Hard Dry	
	5°C (41°F)	60 minutes	3.5 hours ¹	<i>Minimum</i> 3.5 hours <i>Maximum</i> 12 months
	15°C (59°F)	45 minutes	2.5 hours ¹	2.5 hours 12 months
	25°C (77°F)	30 minutes	2 hours ¹	2 hours 12 months
	40°C (104°F)	15 minutes	1.5 hours ¹	1.5 hours 12 months

¹ The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

REGULATORY DATA

Flash Point (Typical)	Part A 50°C (122°F); Part B 158°C (316°F); Mixed 54°C (129°F)		
Product Weight	1.5 kg/l (12.5 lb/gal)		
VOC	1.87 lb/gal (225 g/l)	EPA Method 24	
	154 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Protective Coatings

Direct to Metal Polyaspartic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel Substrates

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 4500, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007), or SSPC SP6, abrasive blasting), prior to the application of Intercure 4500.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	4 part(s) : 1 part(s) by volume		
Working Pot Life	5°C (41°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 40°C (104°F) 1 hour 45 minutes
Airless Spray	Recommended	Tip Range 0.45-0.53 mm (18-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - Touch up and small areas only	Typically 3.0-5.0 mils (75-125 microns) can be achieved	
Roller	Suitable - Touch up and small areas only		
Thinner	International GTA713 (or GTA056)	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.	
Cleaner	International GTA713 (or GTA056)	Do not use alternative cleaners.	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Direct to Metal Polyaspartic

PRODUCT CHARACTERISTICS

The detailed **Intercure 4500 Application Guidelines** should be consulted prior to use.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intercure 4500 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Apply in good climatic conditions. The temperature of the surface to be coated must be at least 3°C (5°F) above the dew point.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or premature loss of gloss. It is recommended that relative humidity should not exceed 85% during application and cure. Application at humidities greater than 50% may result in faster drying times.

Care should be exercised to avoid application in excess of 350 microns (14 mils) dry film thickness.

Higher film thicknesses than recommended will result in higher gloss appearance.

When applying Intercure 4500 in confined spaces ensure adequate ventilation.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Intercure 4500 is not designed for continuous water immersion.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intercure 4500 may be applied direct to metal for atmospheric exposure in environments up to and including C3 (as defined in ISO12944 Part 2). When using Intercure 4500 in atmospheric environments classed as C4 or C5, a recommended primer must be used.

Suitable primer(s) for ISO 12944 C4 environment are:

Intercure 200HS

Suitable primer(s) for ISO 12944 C5 environment are:

Interzinc 52

Intercure 4500 is not normally topcoated with products other than itself.

Direct to Metal Polyaspartic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Intercure 4500 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg	lb	kg	lb
	20 litre	26	57.1	5.1	10.6
	5 US gal				
STORAGE	Shelf Life	12 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Acrylic

PRODUCT DESCRIPTION A low VOC, high performance, two component, isocyanate free crosslinking acrylic finish which provides good durability in terms of colour and gloss retention.

INTENDED USES Designed as a finish coat for use in both new construction and industrial maintenance. For use in a wide variety of aggressive environments including offshore structures, petrochemical facilities, bridges, pulp and paper mills, and power plants.

Suitable for both site and factory application situations and is ideal where legislation prevents the use of isocyanates and restricts solvent levels.

PRACTICAL INFORMATION FOR INTERFINE 629HS

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	65% ± 3% (depends on colour)
Typical Thickness	50 microns (2 mils) dry equivalent to 77 microns (3.1 mils) wet
Theoretical Coverage	13 m ² /litre at 50 microns d.f.t and stated volume solids 521 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
10°C (50°F)	2 hours	30 hours	30 hours	Extended ¹
15°C (59°F)	90 minutes	24 hours	24 hours	Extended ¹
25°C (77°F)	60 minutes	18 hours	18 hours	Extended ¹
40°C (104°F)	45 minutes	6 hours	6 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA **Flash Point** Part A 32°C (90°F); Part B 40°C (104°F); Mixed 40°C (104°F)

Product Weight 1.55 kg/l (12.9 lb/gal)

VOC 2.80 lb/gal (336 g/lit) EPA Method 24
212 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Modified Acrylic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interfine 629HS should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interfine 629HS must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interfine 629HS.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	7 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 10 hours	15°C (59°F) 5 hours	25°C (77°F) 2 hours	40°C (104°F) 1 hour
Airless Spray	Recommended	Tip Range 0.32-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Air Spray (Conventional)	Suitable	Use suitable proprietary equipment		
Brush	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Modified Acrylic

PRODUCT CHARACTERISTICS

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible. Best results will be obtained by a consistent application method. Best results in terms of gloss and appearance will always be obtained by conventional air spray application.

For brush and roller application, and in some colours, two coats of Interfine 629HS may be required to give uniform coverage. This is particularly true for bright colours such as oranges or yellows when using organic pigments. Best practice is to use a colour compatible intermediate or anti-corrosive coating under the Interfine 629HS.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interfine 629HS.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

When applying Interfine 629HS in confined spaces ensure adequate ventilation.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers/intermediates are recommended for Interfine 629HS:

Intercure 200	Interplus 356
Intercure 420	Interseal 670HS
Intergard 251	Interzinc 52
Intergard 269	Interzone 505
Intergard 475HS	Interzone 1000
Interplus 256	Interzone 954

Interfine 629HS is designed only to be topcoated with itself.

For further information on alternative primers/intermediates, consult International Protective Coatings.

Modified Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.5 litre	20 litre	2.5 litre	2.5 litre
	5 US gal	4.36 US gal	5 US gal	0.63 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
	20 litre	30.1 kg		3 kg	
	5 US gal	62.2 lb		6.4 lb	
STORAGE	Shelf Life	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 01/12/2011

Copyright © AkzoNobel, 01/12/2011.

 International, International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Modified Acrylic

PRODUCT DESCRIPTION

A two pack, epoxy acrylic isocyanate free cosmetic finish providing good long term durability. Interfine 691 offers equivalent performance to typical recoatable polyurethane cosmetic finishes.

INTENDED USES

Designed as a finish coat for use in both new construction and industrial maintenance. For use in a wide variety of aggressive environments including offshore structures, petrochemical facilities, bridges, pulp and paper mills, and power plants.

Suitable for both site and factory application situations and is ideal where legislation prevents the use of isocyanates.

PRACTICAL INFORMATION FOR INTERFINE 691

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	53% ± 3% (depends on colour)
Typical Thickness	50 microns (2 mils) dry equivalent to 94 microns (3.8 mils) wet
Theoretical Coverage	10.60 m ² /litre at 50 microns d.f.t and stated volume solids 425 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Conventional Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
-5°C (23°F)	6 hours	26 hours	26 hours	Extended ¹
5°C (41°F)	4 hours	22 hours	22 hours	Extended ¹
25°C (77°F)	2 hours	8 hours	8 hours	Extended ¹
35°C (95°F)	1 hour	6 hours	6 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 29°C (84°F); Part B 28°C (82°F); Mixed 29°C (84°F)		
Product Weight	1.40 kg/l (11.7 lb/gal)	(depends on colour)	
VOC	3.41 lb/gal (409 g/lt)	EPA Method 24	
	286 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Modified Acrylic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interfine 691 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interfine 691 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interfine 691.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1)	Agitate Base (Part A) with a power agitator.		
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	2 part(s) : 1 part(s) by volume			
Working Pot Life	-5°C (23°F) 8 hours	5°C (41°F) 8 hours	25°C (77°F) 7 hours	35°C (95°F) 6 hours
Airless Spray	Recommended	Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment.		
Brush	Suitable	Typically 30-50 microns (1.2-2.0 mils) can be achieved		
Roller	Suitable	Typically 30-50 microns (1.2-2.0 mils) can be achieved		
Thinner	Not recommended	Use International GTA007 only in exceptional circumstances (max 5% by volume). DO NOT USE ANY OTHER THINNER. Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA007			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Modified Acrylic

PRODUCT CHARACTERISTICS

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible. Best results will be obtained by a consistent application method. Best results in terms of gloss and appearance will always be obtained by conventional air spray application.

For brush and roller application, and in some colours, two coats of Interfine 691 may be required to give uniform coverage. This is particularly true for bright colours such as oranges or yellows when using lead-free pigments. Best practice is to use a colour compatible intermediate or anti-corrosive coating under the Interfine 691.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals, traffic fumes and chalking before application of a further coat of Interfine 691.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Condensation occurring during or immediately after application may result in a matt finish and/or colour change.

Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

When applying Interfine 691 in confined spaces ensure adequate ventilation.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following primers/intermediates are recommended for Interfine 691:

Intercure 200	Intercure 200HS
Intercure 384	Intercure 420
Intergard 233	Intergard 251
Intergard 269	Intergard 400
Intergard 410	Intergard 475HS
InterH2O 499	Interplus 356
Interseal 670HS	Intershield 300

Interfine 691 is designed only to be topcoated with itself.

Modified Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15 litre	10 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	15 litre	17.28 kg		5.46 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Do not store above 35°C (95°F).			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polysiloxane

PRODUCT DESCRIPTION

A high performance, two component, high solids finish which contains no free isocyanates, offers compliance to current VOC legislation, and affords extended lifetime to first maintenance when utilised as part of a high performance anticorrosive system. Interfine 878 offers superior gloss and colour retention and provides significantly improved resistance to yellowing & chalking when compared to typical conventional topcoats including catalysed acrylic, and polyurethane finishes.

INTENDED USES

Interfine 878 is a tough, hard wearing finish coat for application over properly primed surfaces, which exhibits good flexibility, abrasion resistance, and affords protection against spills and splashes of a range of chemicals such as acids, alkalis, solvents, and salt solutions. Suitable for application by spray and roller, in both factory new construction and site maintenance application situations, and is an ideal solution where legislation prevents the use of isocyanates, or restricts solvent emission levels.

For use in those market sectors where high standards of cosmetic appearance and aesthetics are a key requirement. These include high performance steel constructions such as sports stadia, bridges, offshore platforms, FPSO vessels, tank farms, chemical and petrochemical plants, pulp and paper mills, and the power industry, in addition to general industrial and commercial steelwork where aesthetics are important.

PRACTICAL INFORMATION FOR INTERFINE 878

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	72%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 69-104 microns (2.8-4.2 mils) wet
Theoretical Coverage	12 m ² /litre at 60 microns d.f.t and stated volume solids 481 sq.ft/US gallon at 2.4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	6 hours	8 hours	8 hours	Extended ¹
15°C (59°F)	4.5 hours	6 hours	6 hours	Extended ¹
25°C (77°F)	3 hours	4 hours	4 hours	Extended ¹
40°C (104°F)	1.5 hours	2.5 hours	2.5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

The drying times quoted have been determined at the quoted temperature and 50% relative humidity. Overcoating intervals for recommended primers and intermediates are dependent upon actual primer/intermediate used. Please see Systems Compatibility section.

REGULATORY DATA

Flash Point (Typical) Part A 34°C (93°F); Part B 55°C (131°F); Mixed 35°C (95°F)

Product Weight 1.34 kg/l (11.2 lb/gal)

VOC 2.05 lb/gal (246 g/lt) EPA Method 24
194 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Acrylic Polysiloxane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interfine 878 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interfine 878 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interfine 878.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	5 part(s) : 1 part(s) by volume		
Working Pot Life	5°C (41°F) 3.5 hours	15°C (59°F) 2.5 hours	25°C (77°F) 40°C (104°F) 2 hours 1.5 hours
Airless Spray	Recommended	Tip Range 0.28-0.43 mm (11-17 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 25-50 microns (1.0-2.0 mils) can be achieved	
Roller	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation.	
Cleaner	International GTA007		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Acrylic Polysiloxane

PRODUCT CHARACTERISTICS

The technology utilised in Interfine 878 is covered by patent (US 6,281,321 and EP 0 941290).

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Best results in terms of gloss and appearance will always be obtained by conventional air spray application.

For brush and roller application, and in some colours, two coats of Interfine 878 may be required to give uniform coverage, especially when applying Interfine 878 over dark undercoats, and when using certain lead free bright colours such as yellows and oranges. Best practice is to use a colour compatible intermediate or anticorrosive coating under the Interfine 878.

This product must only be thinned using the recommended International thinners. The use of alternative thinners, particularly those containing alcohols and ketones, can severely inhibit the curing mechanism of the coating.

Pot life times must not be exceeded even though the material may be still liquid and appear useable. It is good working practice that application should commence with full unopened units of material. Due to the moisture sensitivity with partially filled units of the curing agent component, there is a danger of reaction with atmospheric moisture which could adversely affect the performance of the final coating film.

Surface temperature must always be a minimum of 3°C above dew point.

When applying Interfine 878 in confined spaces ensure adequate ventilation.

Care must be taken when spray applying multiple coats of Interfine 878 to ensure that a continuous wet film is applied to ensure a satisfactory coalescence occurs. Failure to do so may downgrade appearance and performance.

Interfine 878 will cure satisfactorily at relative humidities between 40% and 85%. Curing will be slower at lower humidities and faster at higher humidities.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interfine 878.

Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

This product is not recommended for use in continuous immersion conditions.

Where prolonged chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interfine 878 can be applied over a limited range of intermediates.

Absolute maximum overcoating intervals with Interfine 878 are dependent upon the primer/intermediate. Relevant primer/intermediate product data sheet and Interfine 878 Recommended Working Procedures should be consulted prior to use.

Suitable intermediates are:

Intercure 200	Interseal 670HS
Intercure 200HS	Interzone 505
Intergard 475HS	Interzone 954
Interplus 356	

For other suitable primers/intermediates, consult International Protective Coatings.

Acrylic Polysiloxane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interfine 878 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16.67 litre	20 litre	3.33 litre	5 litre
	5 US gal	4.17 US gal	5 US gal	0.83 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg	lb	kg	lb
	20 litre	25.4 kg		3.7 kg	
	5 US gal	54.7 lb		7.7 lb	
STORAGE	Shelf Life	Part A 12 months minimum at 25°C (77°F). Part B 6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 20/05/2015

Copyright © AkzoNobel, 20/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polysiloxane

PRODUCT DESCRIPTION

A patented (US 6,281,321 and EP 0 941290), high performance, two component, high solids inorganic hybrid finish which offers compliance to all current VOC legislation, and contains no free isocyanates.

Interfine 979 significantly improves upon the gloss and colour retention exhibited by typical polyurethane finishes as well as offering improvement in gloss and colour retention when compared to 1st generation epoxy modified polysiloxane finishes.

Interfine 979 also displays the same corrosion resistance and has enhanced mechanical properties when compared to traditional epoxy technology.

INTENDED USES

Interfine 979 is part of International's premium range of polysiloxane finishes. It is designed to provide excellent long-term colour and gloss retention and provide extended lifetime to first maintenance when utilised as part of a high performance anti-corrosive system. Interfine 979 is intended for use in those market sectors where visual impact is important, and the need for a high standard of cosmetic appearance is required. These include high performance constructions such as bridges, offshore structures and tank farms in addition to general industrial and commercial steelwork where high levels of cosmetic performance are a key requirement.

The dual benefits of corrosion protection & high cosmetic appearance afforded by Interfine 979 mean that as well as exhibiting superior durability, this product also serves as an effective barrier coat similar to a traditional epoxy intermediate, and as such, allows a reduction in the total number of coats required from a multi-coat high performance system - saving application costs, and improving productivity during application.

PRACTICAL INFORMATION FOR INTERFINE 979

Colour Wide range via the Chromascan system

Gloss Level Gloss

Volume Solids 76%

Typical Thickness 100-150 microns (4-6 mils) dry equivalent to
132-197 microns (5.3-7.9 mils) wet

Theoretical Coverage 6.10 m²/litre at 125 microns d.f.t and stated volume solids
244 sq.ft/US gallon at 5 mils d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	6 hours	8 hours	8 hours	Extended ¹
15°C (59°F)	4.5 hours	6 hours	6 hours	Extended ¹
25°C (77°F)	3 hours	4 hours	4 hours	Extended ¹
40°C (104°F)	1.5 hours	2.5 hours	2.5 hours	Extended ¹

¹ On other undercoats consult Interfine 979 Recommended Working Procedures or Interspec for specific details.

The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

In warmer climates (>25°C (77°F)) and/or those that have a tendency for high relative humidity (>60%), an alternative curing agent is available which will allow improved product workability. See Product Characteristics.

REGULATORY DATA

Flash Point (Typical) Part A 32°C (90°F); Part B 55°C (131°F); Mixed 35°C (95°F)

Product Weight 1.33 kg/l (11.1 lb/gal)

VOC 1.81 lb/gal (218 g/lit) EPA Method 24
162 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Acrylic Polysiloxane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interfine 979 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interfine 979 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interfine 979.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Interfine 979. Ensure zinc primers are fully cured before overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4.00 part(s) : 1.00 part(s) by volume			
Working Pot Life	5°C (41°F) 3.5 hours	15°C (59°F) 2.5 hours	25°C (77°F) 2 hours	40°C (104°F) 1.5 hours
	Note: Pot life times are applicable to both curing agent grades.			
Airless Spray	Recommended	Tip Range 0.28-0.53 mm (11-21 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Conventional)	Recommended	Gun	DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E	
Brush	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA007			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of material have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Acrylic Polysiloxane

PRODUCT CHARACTERISTICS

The detailed Interfine 979 Application Guidelines should be consulted prior to use.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible. Best results in terms of gloss and appearance will always be obtained by conventional air spray application.

When applying Interfine 979 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing alcohols and ketones, can severely inhibit the curing mechanism of the coating.

After mixing a slight exotherm may be noted, which is typical of this product and is a result of chemical reaction.

Pot life times must not be exceeded even though the material may be still liquid and appear useable. It is good working practice that application should commence with full unopened units of material. Due to the moisture sensitivity with partially filled units of the curing agent component, there is a danger of reaction with atmospheric moisture which could adversely affect the performance of the final coating film. This phenomenon will be more prominent in the faster drying grade of curing agent where mixed product surface skinning in the container may occur more readily, particularly in warmer climates and / or those with high humidity.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interfine 979 in confined spaces ensure adequate ventilation.

Care must be taken when spray applying multiple coats of Interfine 979 to ensure that a continuous wet film is applied and a minimum dry film thickness of 100 microns (4 mils) is achieved. Failure to do so may result in pinholing which will detract from ultimate appearance and performance.

Interfine 979 will cure satisfactorily at relative humidities between 40% and 85%. Curing will be slower at lower humidities and faster at higher humidities.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interfine 979.

Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

Absolute measured adhesion of topcoats to aged Interfine 979 is less than that to fresh material, however, it is adequate for the specified end use.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

Alternative Curing Agent

For improved product workability in warmer climates and / or those with high relative humidity.

The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	10 hours	24 hours	24 hours	Extended ¹
15°C (59°F)	6 hours	12 hours	12 hours	Extended ¹
25°C (77°F)	4 hours	8 hours	8 hours	Extended ¹
40°C (104°F)	2 hours	6 hours	6 hours	Extended ¹

¹ On other undercoats consult Interfine 979 Recommended Working Procedures or Interspec for specific details.

SYSTEMS COMPATIBILITY

Interfine 979 can be applied over a limited range of primers and intermediates.

Suitable primers are:

Intercure 200	Intercure 200HS
Interzinc 52	Interplus 356
Interzinc 315	Interzinc 22
Interzinc 52HS	

Suitable intermediates are:

Intercure 420	Intergard 475HS
Interseal 670HS	Interzone 505
Interzone 954	

Interfine 979 must not be applied directly over Interzinc 52 low temperature grade cure (EPA176).

Absolute maximum overcoating intervals with Interfine 979 are dependent upon primer/intermediate. Interfine 979 Recommended Working Procedures must be consulted prior to use.

Interfine 979 should only be overcoated with itself.

Acrylic Polysiloxane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interfine 979 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	24.3 kg		4.4 kg	
	5 US gal	49.6 lb		8.8 lb	
STORAGE	Shelf Life	Part A: 12 months minimum at 25°C (77°F).			
		Part B: 6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polysiloxane

PRODUCT DESCRIPTION A patented technology, high performance, low VOC single pack acrylic polysiloxane finish coat containing no free isocyanates.

INTENDED USES Primarily designed for brush and roller application as a maintenance finish coat in onshore and offshore environments such as tank externals, pipelines and structural supports where a high standard, durable, UV resistant, cosmetic appearance is required.

PRACTICAL INFORMATION FOR INTERFINE 1080

Colour	Range available via the Chromascan system
Gloss Level	Gloss
Volume Solids	68%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 74-110 microns (3-4.4 mils) wet
Theoretical Coverage	13.60 m ² /litre at 50 microns d.f.t and stated volume solids 545 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Brush, Roller

Drying Time

			Overcoating interval with self	
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	5 hours	48 hours ¹	48 hours	12 months
15°C (59°F)	3 hours	16 hours ¹	16 hours	12 months
25°C (77°F)	3 hours	7 hours ¹	7 hours	12 months
40°C (104°F)	2.5 hours	6 hours ¹	6 hours	12 months

¹ Sufficient coating film strength has developed to permit the handling and movement of coated steelwork.

The dry times are influenced by relative humidity. The higher the relative humidity, the faster the dry times. The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

In extreme environments, maximum overcoating times may be lower; see Application Guidelines for further information.

REGULATORY DATA

Flash Point (Typical)	29°C (84°F)	
Product Weight	1.51 kg/l (12.6 lb/gal)	
VOC	2.29 lb/gal (275 g/l)	EPA Method 24
	2.09lb/gal (250g/l)	EPA Method 24 (Available in North America only)
	205 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Acrylic Polysiloxane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interfine 1080 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interfine 1080 must be applied within the overcoating intervals specified (consult the Interfine 1080 Application Guidelines).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and a full coat of primer applied prior to overcoating with Interfine 1080.

Aged Coatings

Interfine 1080 is suitable for overcoating most tightly adherent aged coatings. Loose or flaking coatings should be removed back to a firm edge. Glossy finishes may require light abrasion to provide a physical 'key'. For suitable systems, please refer to Interfine 1080 Application Guidelines.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Airless Spray	Suitable	Tip Range 0.28-0.38 mm (11-15 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) Refer to Interfine 1080 Application Guidelines for more details.
Air Spray (Pressure Pot)	Suitable	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Air Spray (Conventional)	Suitable	Use suitable proprietary equipment
Brush	Recommended	Typically 40-50 microns (1.6-2.0 mils) can be achieved
Roller	Recommended	Typically 40-50 microns (1.6-2.0 mils) can be achieved Best results in terms of gloss and appearance will be achieved using a medium nap roller
Thinner	International GTA007 (or GTA028 in North America Only)	Maximum recommended thinning 2.5% by volume Do not thin more than allowed by local environmental legislation
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic Polysiloxane

PRODUCT CHARACTERISTICS

The detailed Interfine 1080 Application Guidelines should be consulted prior to use.

Interfine 1080 is specifically designed for on-site application via brush and roller techniques. Application via airless and air spray methods is suitable. However, care must be taken when spray applying Interfine 1080 to ensure that a continuous wet film thickness of 75 to 100 microns (3 - 4.0 mils) is achieved in order that satisfactory film coalescence can occur. Please see the product Application Guidelines for information or contact your local International Protective Coatings representative for further advice.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

For brush and roller application, and in some colours, two coats of Interfine 1080 may be required to give uniform coverage, especially when overcoating dark primers/intermediates.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing alcohols and ketones, can severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

It is recommended that relative humidity should not exceed 85% during application and cure.

When applying Interfine 1080 in confined spaces ensure adequate ventilation.

Condensation occurring during or immediately after application may result in a matt finish and/or colour change.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination before application of a further coat of Interfine 1080.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interfine 1080 is compatible with a range of primers and intermediates such as, but not limited to:-

Intercure 200	Intercure 200HS
Intergard 269	Intershield 300
Intergard 345	Interplus 356
Intergard 475HS	
Interseal 1079 (Available in North America only)	
Interzone 954 (EAA964 Part B must be used)	

Note: Absolute maximum overcoating interval of Interfine 1080 over approved primers and intermediates is very much product specific, and dependent upon local climate and environmental conditions.

Further information regarding additional compatible primers and intermediates and associated overcoating intervals can be found in the Interfine 1080 Application Guidelines. Always consult your local International Protective Coatings representative for specific recommendations.

Acrylic Polysiloxane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interfine 1080 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		
		Vol	Pack
	5 litre	5 litre	5 litre
	20 litre	20 litre	20 litre
	5 US gal	5 US gal	5 US gal
	1 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	31.98 kg	
	5 litre	6.65 kg	
	5 US gal	67 lb	
STORAGE	Shelf Life	12 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Sealer Aluminium

PRODUCT DESCRIPTION

A two component epoxy sealer coat pigmented with aluminium flake.

INTENDED USES

For the effective penetration and sealing of thermally sprayed aluminium coatings to eliminate porosity.

PRACTICAL INFORMATION FOR INTERGARD 214

Colour	Aluminium
Gloss Level	Not applicable
Volume Solids	30%
Typical Thickness	15-25 microns (0.6-1 mils) dry equivalent to 50-83 microns (2-3.3 mils) wet
Theoretical Coverage	12 m ² /litre at 25 microns d.f.t and stated volume solids 481 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	45 minutes	5 hours	6 hours	Extended ¹
15°C (59°F)	30 minutes	3 hours	3 hours	Extended ¹
25°C (77°F)	20 minutes	2 hours	2 hours	Extended ¹
40°C (104°F)	15 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 27°C (81°F); Part B 33°C (91°F); Mixed 32°C (90°F)

Product Weight 0.98 kg/l (8.2 lb/gal)

VOC 619 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Sealer Aluminium

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Thermally Sprayed Metal Coatings

Application of Intergard 214 should be undertaken within the recommended overcoating limits for metal spray. Normally, application of the sealer should take place within 4 hours of the final application of metal spray. The surface to be coated should be clean, dry and free from contamination before application of Intergard 214.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	2 part(s) : 3 part(s) by volume			
Working Pot Life	5°C (41°F) 16 hours	15°C (59°F) 10 hours	25°C (77°F) 5 hours	40°C (104°F) 3 hours
Airless Spray	Suitable (See Product Characteristics)	Tip Range 0.33-0.38 mm (13-15 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Suitable (See Product Characteristics)	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Recommended			
Roller	Recommended			
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Sealer Aluminium

PRODUCT CHARACTERISTICS

Intergard 214 is designed to seal porosity in aluminium metal spray. When applying by brush, work the sealer thoroughly into the surface of the aluminium metal spray.

When application is by spray rather than by brush, careful inspection will be needed to ensure thorough sealing of the aluminium metal spray. Any runs, sags or pooling on horizontal surfaces should be brushed out immediately.

Best results will be achieved at temperatures above 0°C (32°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies, Intergard 214 will chalk when exposed to weathering but this will not reduce efficiency in sealing metal spray.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Intergard 214 is not suitable for exposure to acid or alkaline environments.

This product has the following specification approvals:

- UK Department of Transport Item No.159

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intergard 214 can be overcoated with a wide range of products, including:

Intercure 200
Intercure 200HS
Intercure 324
Intercure 384
Intergard 475HS
Interseal 670HS
Interzone 505

For other suitable topcoats, consult International Protective Coatings.

Sealer Aluminium

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	2 litre	5 litre	3 litre	3.7 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	2.7 kg		3.2 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component epoxy anti-corrosive primer pigmented with zinc phosphate.

INTENDED USES

For use on properly prepared surfaces in both new construction situations and as an industrial maintenance primer for a wide range of anti-corrosive coatings systems for use in the offshore, petrochemical, chemical, pulp and paper and bridge industries.

The fast drying and handling properties, together with extended overcoatability, make this an excellent primer for factory application prior to full system application on site. Intergard 251 provides good abrasion resistance which minimises mechanical damage in transit between the factory and site.

PRACTICAL INFORMATION FOR INTERGARD 251

Colour	Buff, Grey, Red Oxide
Gloss Level	Matt
Volume Solids	63% ± 2%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 79-119 microns (3.2-4.8 mils) wet
Theoretical Coverage	8.40 m ² /litre at 75 microns d.f.t and stated volume solids 337 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Airless Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	2 hours	7 hours	7 hours	12 months ¹
15°C (59°F)	1 hour	5 hours	5 hours	12 months ¹
25°C (77°F)	45 minutes	3 hours	3 hours	12 months ¹
40°C (104°F)	30 minutes	2 hours	2 hours	12 months ¹

¹ Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical)	Part A 24°C (75°F); Part B 27°C (81°F); Mixed 24°C (75°F)
Product Weight	1.38 kg/l (11.5 lb/gal)
VOC	3.25 lb/gal (390 g/lit) EPA Method 24 293 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 251, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Surface profile must be a minimum of 50 microns (2 mils).

Shop Primed Steelwork

Weld seams and damaged areas should be cleaned to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3. Optimum performance will be achieved with blasting to Sa2½ (ISO 8501-1:2007) or SSPC-SP6; where this is not practical, hand preparation to SSPC-SP11 is recommended.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 10 hours	15°C (59°F) 8 hours	25°C (77°F) 6 hours	40°C (104°F) 3 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 251 is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6-12 months exposure (depending upon the corrosivity of the environment) provided it is adequately cleaned and any areas of mechanical damage repaired.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thickness. When using as a blast holding primer avoid over-application as thick films may suffer from cohesive film splitting if subsequent coats are also over-applied.

Over-application of Intergard 251 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

When applying Intergard 251 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance, curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Intergard 251 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 251 is not designed for continuous water immersion.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 251 is designed for application to correctly prepared steel. However, it is also possible to apply over approved prefabrication primers. Further details of these can be obtained from International Protective Coatings.

The following primers are recommended for Intergard 251:

Interzinc 22 (mist coat or tie coat may be required)*
Interzinc 52
InterH2O 280

The following topcoats are recommended for Intergard 251:

Intercure 200HS	Intergard 345
Intercure 420	Intergard 475HS
Interfine 629HS	Intergard 740
Interfine 878	Interseal 670HS
Interfine 979	Interthane 870
Intergard 251	Interthane 990

Alternative topcoats are also available, consult International Protective Coatings.

See relevant product data sheet for details.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	26 kg		4.2 kg	
	5 US gal	54.2 lb		8.8 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 20/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A quick drying two component epoxy primer.

Suitable for overcoating after prolonged periods of weathering.

INTENDED USES

As a blast holding primer suitable for use in immersed and exposed conditions and overcoatable with a wide range of high performance systems.

For use at both new construction and maintenance.

Also for use as a tie coat on zinc silicate to prevent zinc salt formation on weathering and pinholing of subsequent high build topcoats.

PRACTICAL INFORMATION FOR INTERGARD 269

Colour	Red (See Product Characteristics section for further details)
Gloss Level	Matt
Volume Solids	47%
Typical Thickness	40 microns (1.6 mils) dry equivalent to 85 microns (3.4 mils) wet
Theoretical Coverage	11.80 m ² /litre at 40 microns d.f.t and stated volume solids 471 sq.ft/US gallon at 1.6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	40 minutes	16 hours	16 hours	Extended ¹
15°C (59°F)	35 minutes	12 hours	12 hours	Extended ¹
25°C (77°F)	30 minutes	8 hours	8 hours	Extended ¹
40°C (104°F)	15 minutes	1 hour	4 hours	Extended ¹

¹ Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical)	Part A 26°C (79°F); Part B 25°C (77°F); Mixed 26°C (79°F)	
Product Weight	1.53 kg/l (12.8 lb/gal)	
VOC	3.75 lb/gal (450 g/lt)	EPA Method 24
	293 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For immersion service, Intergard 269 must be applied to surfaces blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. However, for atmospheric exposure Intergard 269 may be applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Ultra High Pressure Hydroblasting / (non-immersed service only)

May be applied to surfaces prepared to Sa2 (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2M (refer to International Hydroblasting Standards). Further information is available from International Protective Coatings.

Tie Coat Applications (see Product Characteristics)

In the case of zinc primers, where necessary, remove weld spatter, smooth weld seams and sharp edges and blast clean welds and damaged primer to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. The shop primer or other primer surface should be dry and free of all contamination (oil, grease, salt etc) and overcoated with Intergard 269 within the overcoating intervals specified for the primer (consult the relevant product data sheet).

Ensure that the zinc primer has fully cured and is clean, dry and free from zinc salts prior to overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 17 hours	15°C (59°F) 12 hours	25°C (77°F) 8 hours	40°C (104°F) 3 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Suitable - small areas only	Typically 25-30 microns (1.0-1.2 mils) can be achieved		
Roller	Suitable - small areas only	Typically 25-30 microns (1.0-1.2 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Use as a Holding Primer

Intergard 269 is suitable for use as a blast holding primer for steelwork intended for exposure in both immersed and atmospheric exposure conditions. Apply Intergard 269 at the recommended thickness as over-application will result in a glossy surface which may not be suitable for overcoating after ageing.

When coating steel in high ambient temperatures thinning with International thinners may be necessary to prevent dry spray and control film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Intergard 269 is also suitable for application to degreased and abraded stainless steel and galvanised steel. Abrasion can be carried out by light blasting using a non-ferrous abrasive or by carborundum disk on small areas.

Use as a Tie Coat

To ensure good penetration of zinc silicate coatings Intergard 269 should be thinned by 15-25% with International thinners. Intergard 269 should be allowed to cure before topcoating with high builds otherwise the effectiveness in preventing pinholing is reduced.

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

For application at temperatures below 10°C (50°F) alternative tie coats are available. For information contact International Protective Coatings.

When used in a marine environment the schemes and overcoating intervals utilised may differ.

Intergard 269 is globally available in Red; alternative shades may be available upon request. Consult International Protective Coatings for further details.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 269 is suitable for use over the following primers:

Interzinc 22
Interzinc 52

The following topcoats/intermediates are recommended for Intergard 269:

Intercure 200HS	Intergard 740
Intercure 420	Interseal 670HS
Interfine 629HS	Interthane 870
Interfine 878	Interthane 990
Interfine 979	Interzone 505
Intergard 251	Interzone 954
Intergard 345	Interzone 1000
Intergard 475HS	

For details of other systems, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	28.9 kg		4.1 kg	
	5 US gal	59.7 lb		8.4 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two pack epoxy zinc phosphate primer, primarily formulated to meet the requirements of the UK Highways Agency specification.

INTENDED USES

Intergard 307 is intended to be used as a primer or blast primer under high build epoxy coating schemes for new construction.

PRACTICAL INFORMATION FOR INTERGARD 307

Colour	Bamboo			
Gloss Level	Matt			
Volume Solids	43%			
Typical Thickness	25-40 microns (1-1.6 mils) dry equivalent to 58-93 microns (2.3-3.7 mils) wet			
Theoretical Coverage	17.20 m ² /litre at 25 microns d.f.t and stated volume solids 690 sq.ft/US gallon at 1 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	90 minutes	5 hours	30 hours	Extended ¹
10°C (50°F)	60 minutes	4 hours	24 hours	Extended ¹
20°C (68°F)	30 minutes	2 hours	16 hours	Extended ¹
30°C (86°F)	15 minutes	1 hour	12 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 23°C (73°F); Part B 23°C (73°F); Mixed 23°C (73°F)	
Product Weight	1.40 kg/l (11.7 lb/gal)	
VOC	351 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all steel surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning.

Steel Substrates

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 307, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 8 hours	10°C (50°F) 8 hours	20°C (68°F) 8 hours	30°C (86°F) 6 hours
Airless Spray	Recommended	Tip Range 0.38-0.48 mm (15-19 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Brush	Suitable - small areas only			
Thinner	International GTA220			
Cleaner	International GTA822	N.B Clean all equipment immediately after use.		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 307 is intended for use as a thin film epoxy primer, or blast primer, as part of approved UK Highways Agency and Network Rail protective schemes, typically under high build epoxy glass flake coatings.

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

This product contains a high proportion of zinc phosphate, to comply with the requirements of the Highways Agency.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. This product will not cure adequately below 5°C (41°F). Ensure adequate ventilation is provided throughout application and curing.

In common with all epoxies Intergard 307 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 307 is not suitable as a primer for systems designed for permanent water immersion.

This product has the following specification approvals:

UK Highways Agency Item No. 110

UK Network Rail Systems N2, M21

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following topcoats/intermediates are recommended for Intergard 307:

Intercure 324
Interzone 505

For other suitable topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	3.75 litre	5 litre	1.25 litre	1.5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		6.39 kg		1.26 kg	
	5 litre				
STORAGE	Shelf Life	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast curing epoxy primer/finish containing zinc phosphate anti-corrosive pigmentation.

INTENDED USES

Suitable for use as a one or two coat primer/finish coating or as an intermediate over recommended anti-corrosive primers.

Intergard 345 provides a combination of anti-corrosive barrier protection, chemical fume and spillage resistance, along with good abrasion resistance.

Ideal for use in moderately corrosive environments and where fast drying/rapid recoating is desired.

PRACTICAL INFORMATION FOR INTERGARD 345

Colour	Wide range via the Chromascan system
Gloss Level	Semi Gloss
Volume Solids	70%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 143-214 microns (5.7-8.6 mils) wet
Theoretical Coverage	5.60 m ² /litre at 125 microns d.f.t and stated volume solids 225 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F) ¹	90 minutes	7 hours	7 hours	Extended ²
15°C (59°F) ¹	75 minutes	5 hours	5 hours	Extended ²
25°C (77°F) ¹	60 minutes	2.5 hours	2.5 hours	Extended ²
40°C (104°F) ¹	30 minutes	1 hour	1 hour	Extended ²

¹ See Product Characteristics section for further details

² See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 33°C (91°F); Part B 43°C (109°F); Mixed 34°C (93°F)

Product Weight 1.45 kg/l (12.1 lb/gal)

VOC 2.67 lb/gal (320 g/lit) EPA Method 24
235 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 345, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Intergard 345 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Primed Surfaces

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

Concrete, Pre-Cast Blockwork etc

Intergard 345 is suitable for application to concrete. For the first coat it is recommended that Intergard 345 is thinned 10-15% by International Thinners in order to provide good penetration of the concrete substrate and act as a primer / sealer coat.

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 6%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also be sweep blasted (preferred) or acid etched to remove laitence.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 60 minutes	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved		
Thinner	International GTA220 (International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA220 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA220. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intergard 345 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Intergard 345 in confined spaces ensure adequate ventilation.

In moderately corrosive environments, it is recommended that a minimum of 100 microns (4 mils) dry film thickness should be specified to ensure adequate anti-corrosive performance. However, in non-aggressive, low corrosive environments such as those equating to C2 as per ISO 12944 part 2, it is acceptable to specify Intergard 345 as a single coat at 80 microns (3.2 mils) dry film thickness.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

When utilising certain colours, particularly the darker shades via the Chromascan system where maximum addition of colourants is required, it is necessary to allow an increase in the quoted drying and overcoating times. Consult International Protective Coatings for further details.

Exposure to dew or rain prior to specified hard dry time may cause a deterioration in surface appearance which may in turn impair overall performance. This phenomenon is particularly prominent in darker shades.

In common with all epoxies Intergard 345 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 345 is normally applied directly to blast cleaned steel, however, it can also be applied directly over the following primers:-

- Intercure 200HS
- Intercure 200
- Intergard 251
- Intergard 269
- Intergard 345
- Interzinc 52
- Interzinc 315

The following topcoats are recommended:

- Interfine 629HS
- Intergard 740
- Interthane 870
- Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	26.8 kg		4.3 kg	
	5 US gal	50 lb		8.6 lb	
STORAGE	Shelf Life	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A high build, two component epoxy, pigmented with lamellar micaceous iron oxide for enhanced corrosion resistance and improved overcoating properties after ageing.

INTENDED USES

As a corrosion resistant high build primer/intermediate or finish coat, to provide excellent barrier protection as part of a high performance system in aggressive environments including offshore structures, bridges, chemical and petrochemical plants, and power stations.

The incorporation of plate-like micaceous iron oxide pigment both increases the barrier effect and improves long term overcoating properties of the system, making this material ideally suitable for application in the fabrication shop, prior to shipping, with final overcoating at site.

Ideally suited as a damage and handling resistant coating which can be factory applied and then overcoated on site with minimum surface preparation.

Suitable for use in both new construction and industrial maintenance situations.

PRACTICAL INFORMATION FOR INTERGARD 400

Colour	Dark Grey, Silver Grey, Light Grey
Gloss Level	Matt
Volume Solids	65%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 154-231 microns (6.2-9.2 mils) wet
Theoretical Coverage	5.20 m ² /litre at 125 microns d.f.t and stated volume solids 209 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	6 hours	24 hours	24 hours	Extended ¹
15°C (59°F)	4 hours	16 hours	20 hours	Extended ¹
25°C (77°F)	2 hours	8 hours	12 hours	Extended ¹
40°C (104°F)	1 hour	5 hours	8 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 23°C (73°F); Part B 23°C (73°F); Mixed 25°C (77°F)		
Product Weight	1.68 kg/l (14.0 lb/gal)		
VOC	2.56 lb/gal (307 g/lit)	EPA Method 24	
	221 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Protective Coatings

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 400, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Shop Primed Surfaces

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intergard 400. Ensure zinc primers are fully cured before overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	<ul style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 		
Mix Ratio	5.67 part(s) : 1.00 part(s) by volume		
Working Pot Life	10°C (50°F) 8 hours	15°C (59°F) 5 hours	25°C (77°F) 40°C (104°F) 3 hours 2 hours
Airless Spray	Recommended	Tip Range 0.48-0.63 mm (19-25 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA822		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Epoxy

PRODUCT CHARACTERISTICS

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Intergard 400 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance. The actual rate of chalking will depend on climatic conditions and will normally be limited to a thin surface layer.

Products with high micaceous iron oxide levels tend to produce films which are relatively dark colours, consequently with some colours of thin film finishes two coats may be needed to give good coverage, especially with brush and roller application.

This product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

Aged overcoating is achieved due to the physical roughness imparted to the surface by the micaceous iron oxide. Over-application of Intergard 400 can result in a glossy resin rich surface layer which may require abrasion before satisfactory adhesion and overcoating can be achieved.

Absolute measured adhesion of topcoats to aged Intergard 400 is less than that to fresh material, however, it is adequate for the specified end use.

When used in a marine environment the schemes and overcoating intervals utilised may differ.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Intergard 400:

Intercure 200	Interplate 240
Intercure 202	Interzinc 12*
Intergard 251	Interzinc 22*
Intergard 269	Interzinc 42
Interplate 11	Interzinc 52
Interplate 170	Interzinc 72
Interplate 180	Interzinc 315

(mist or tie coat recommended)*

Suitable topcoats are:

Interfine 629HS	Intergard 740
Intergard 400	Interseal 670HS
Intergard 410	Interthane 799
Intergard 475HS	Interthane 990
Intergard 540	

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17 litre	20 litre	3 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	32.8 kg		3.3 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

*All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component epoxy sealer coat, pigmented with micaceous iron oxide. Formulated on proprietary polymer technology, which provides rapid cure and overcoating, even at low temperatures.

INTENDED USES

To provide efficient sealing of zinc silicate primers in order to prevent pinholing of subsequent topcoats. Can also be used for sealing zinc and aluminium metal spray either as a single coat system or prior to overcoating with a suitable topcoat where required.

Intergard 405 is suitable for use as part of a coating system in a range of highly corrosive environments, including offshore structures, petrochemical and chemical plants, bridges, refineries, pulp and paper plants and power stations.

PRACTICAL INFORMATION FOR INTERGARD 405

Colour	Red Oxide
Gloss Level	Matt
Volume Solids	38%
Typical Thickness	25 microns (1 mils) dry equivalent to 66 microns (2.6 mils) wet
Theoretical Coverage	15.20 m ² /litre at 25 microns d.f.t and stated volume solids 610 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	30 minutes	4 hours	4 hours	Extended ¹
15°C (59°F)	20 minutes	2 hours	2 hours	Extended ¹
25°C (77°F)	15 minutes	90 minutes	90 minutes	Extended ¹
40°C (104°F)	10 minutes	45 minutes	45 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point	Part A 25°C (77°F); Part B 24°C (75°F); Mixed 24°C (75°F)	
Product Weight	1.30 kg/l (10.8 lb/gal)	
VOC	406 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Intergard 405 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intergard 405 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 405.

Metallic Zinc Primed Surfaces

In the case of zinc primers, where necessary, remove weld spatter, smooth weld seams and sharp edges and blast clean welds and damaged primer to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. The shop primer or other primer surface should be dry and free of all contamination (oil, grease, salt etc) and overcoated with Intergard 405 within the overcoating intervals specified for the primer (consult the relevant product data sheet).

Ensure that the zinc primer has fully cured and is clean, dry and free from zinc salts prior to overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	1.5 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	16 hours	10 hours	5 hours	3 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 127 kg/cm ² (1806 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Suitable - small areas only			
Roller	Suitable - small areas only			
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 405 is formulated at a viscosity suitable for penetration and efficient sealing of freshly applied zinc silicates such as Interzinc 12 and Interzinc 22. It is also suitable as a travel or weathering coat for zinc epoxy primers.

This product must only be thinned using recommended International GTA220 thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Best results will be achieved at temperatures above 0°C (32°F).

Over-application will result in sagging as Intergard 405 has been designed to give maximum flow characteristics.

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

Intergard 405 is not designed as a blast holding primer and when used in such circumstances is unlikely to give long term corrosion protection. Intergard 269, Intergard 251 or Intercure 200 are preferred alternatives in these circumstances.

Intergard 405 has been specifically designed to provide superior properties of curing flow in order to provide efficient sealing of zinc silicate primers at temperatures less than 10°C (50°F).

Intergard 405 can also be used over zinc or aluminium metal spray to seal off any porosity and ensure maximum corrosion life.

When applying Intergard 405 in confined spaces ensure adequate ventilation.

In common with all epoxies Intergard 405 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

This product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

Absolute measured adhesion of topcoats to aged Intergard 405 is less than that to fresh material, however, it is adequate for the specified end use.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intergard 405 is specifically designed for use over the following zinc silicate primers:

Interzinc 12
Interzinc 22

It can also be used over the following zinc epoxy primers:

InterH2O 280
Interzinc 315
Interzinc 42
Interzinc 52
Interzinc 72

The following topcoats are recommended for Intergard 405:

Intercure 420	Intergard 740
InterH2O 401	Interseal 670HS
Interfine 629HS	Interthane 990
Intergard 400	Interzone 505
Intergard 410	Interzone 954
Intergard 475HS	

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	12 litre	20 litre	8 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
		20.8 kg		8.6 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

Copyright © AkzoNobel, 23/09/2009.

 International, International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A high build, high performance, two component epoxy with excellent chemical and abrasion resistance.

INTENDED USES

Suitable for use as part of a high performance coating system to provide an anti-corrosive barrier in areas where aggressive corrosion conditions prevail.

Intergard 410 can be used as a primer, a coloured intermediate/undercoat for high performance durable finishes or alternatively, can act as a finish coating where a high quality, decorative finish is not required.

Widely used in both new construction and industrial maintenance on offshore structures, chemical plants, power stations and pulp and paper plants.

PRACTICAL INFORMATION FOR INTERGARD 410

Colour	Wide range via the Chromascan system			
Gloss Level	Semi Gloss			
Volume Solids	60%± 3% (depends on colour)			
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 167-250 microns (6.7-10 mils) wet			
Theoretical Coverage	4.80 m ² /litre at 125 microns d.f.t and stated volume solids 192 sq.ft/US gallon at 5 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	5 hours	24 hours	24 hours	10 days
15°C (59°F)	4 hours	20 hours	20 hours	7 days
25°C (77°F)	2 hours	10 hours	10 hours	7 days
40°C (104°F)	1 hour	5 hours	5 hours	4 days

REGULATORY DATA

Flash Point (Typical)	Part A 30°C (86°F); Part B 29°C (84°F); Mixed 30°C (86°F)		
Product Weight	1.30 kg/l (10.8 lb/gal)		
VOC	3.36 lb/gal (403 g/l) 338 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Protective Coatings

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Intergard 410, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Primed Surfaces

The primer surface should be dry and free from all contamination and Intergard 410 must be applied within the overcoating intervals specified (consult the relevant product data sheet). Areas of breakdown, damage etc., should be prepared to the specified standard (e.g Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 410.

Shop Primed Steelwork

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intergard 410. Ensure zinc primers are fully cured before overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 8 hours	15°C (59°F) 6 hours	25°C (77°F) 4 hours	40°C (104°F) 2 hours
Airless Spray	Recommended	Tip Range 0.45-0.58 mm (18-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Intergard 410 in confined spaces ensure adequate ventilation.

In common with all epoxies Intergard 410 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance. The actual rate of chalking will depend upon climatic conditions and will normally be limited to a thin surface layer. Chalking is only likely to reduce anti-corrosion properties when the chalked film can be removed, for example, by exposure to high UV together with intermittent exposure to fast moving water.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

Intergard 410 is suitable for use as a protective system for concrete floors and walls subjected to light traffic and mild chemical attack.

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 6%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also be sweep blasted (preferred) or acid etched to remove laitence. Priming should be undertaken with Intergard 740 or Intergard 410 thinned with International GTA220 thinners at approximately 10-20% by volume.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 410 can be applied over an extremely wide range of priming systems which include:

Intercure 200	Interplate 398
Intercure 202	Interzinc 12 (mist or tie coat recommended)
Intercure 420	Interzinc 22 (mist or tie coat recommended)
Intercure 422	Interzinc 42
Intergard 251	Interzinc 52
Intergard 269	Interzinc 72
Interplate 11	Interzinc 315
Interplate 240	

Suitable topcoats are:

Interfine 629HS	Intergard 740
Intergard 410	Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg		kg	
	20 litre	24.2		4.2	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A low VOC, high solids, high build, two component epoxy coating. Available with conventional pigmentation, or alternatively can be pigmented with micaceous iron oxide to provide enhanced overcoating properties.

INTENDED USES

For use as a high build epoxy coating to improve barrier protection for a range of anti-corrosive coating systems in a wide range of environments including offshore structures, petrochemical plants, pulp and paper mills and bridges.

Suitable for use in both maintenance and new construction situations as part of an anti-corrosive coating system.

The micaceous iron oxide variant improves long term overcoating properties, better facilitating application in the fabrication shop, prior to shipping, with final overcoating on site.

PRACTICAL INFORMATION FOR INTERGARD 475HS

Colour	Light Grey MIO and a selected range of colours			
Gloss Level	Matt			
Volume Solids	80%			
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 125-250 microns (5-10 mils) wet			
Theoretical Coverage	6.40 m ² /litre at 125 microns d.f.t and stated volume solids 257 sq.ft/US gallon at 5 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
-5°C (23°F)	150 minutes	48 hours	48 hours	Extended ¹
5°C (41°F)	90 minutes	16 hours	16 hours	Extended ¹
10°C (50°F)	80 minutes	14 hours	13 hours	Extended ¹
15°C (59°F)	75 minutes	10 hours	10 hours	Extended ¹
25°C (77°F)	60 minutes	5 hours	5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

For curing at elevated temperatures an alternative curing agent is available. See Product Characteristics for details.

REGULATORY DATA

Flash Point (Typical) Part A 34°C (93°F); Part B 31°C (88°F); Mixed 33°C (91°F)

Product Weight 2.1 kg/l (17.5 lb/gal)

VOC 1.72 lb/gal (207 g/lit) 92 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Intergard 475HS should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intergard 475HS must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 475HS.

Metallic Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intergard 475HS. Ensure zinc primers are fully cured before overcoating.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	-5°C (23°F) 3 hours	5°C (41°F) 3 hours	15°C (59°F) 2.5 hours	25°C (77°F) 2 hours
Airless Spray	Recommended	Tip Range 0.53-0.63 mm (21-25 thou) Total output fluid pressure at spray tip not less than 190 kg/cm ² (2702 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable	Typically 75 microns (3.0 mils) can be achieved		
Roller	Suitable	Typically 75 microns (3.0 mils) can be achieved		
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 475HS is primarily designed for use as a high build barrier coat to impart barrier protection to a coating system. It is recommended that it should be overcoated with a durable finish from the Interfine or Interthane range when appearance is important.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intergard 475HS by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C above dew point. When applying Intergard 475HS in confined spaces ensure adequate ventilation. Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

Elevated Temperature Curing

An alternative curing agent is available for applications at temperatures greater than 25°C (77°F).

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			<i>Minimum</i>	<i>Maximum</i>
25°C (77°F)	90 minutes	6 hours	6 hours	Extended *
40°C (104°F)	60 minutes	2 hours	2 hours	Extended *

* See International Protective Coatings Definitions and Abbreviations

Interchanging standard and elevated temperature curing agents during application to a specific structure will give rise to an observable colour change due to the difference in the yellowing/discolouration process common to all epoxies on exposure to UV light. In common with all epoxies Intergard 475HS will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 475HS is not designed for continuous water immersion.

The micaceous iron oxide variant of this product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

When applying Intergard 475HS at temperatures less than 15°C (59°F) or wet film thicknesses of 150 microns (6 mils) or less, addition of around 5% International GTA007 thinners will improve film appearance, sprayability and aid film thickness control.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 475HS is designed for use over correctly primed steel. Suitable primers are:

Intercure 200	Interzinc 22 (mist coat or tie coat may be required)*
Intergard 251	Interzinc 315
Intergard 269	Interzinc 52

Suitable topcoats are:

Intergard 740	Interfine 629HS
Interthane 990	Intergard 475HS

For alternative primers and finishes, consult International Protective Coatings.

See relevant product data sheet for details.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	5 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	29.3 kg		9.3 kg	
	5 US gal	57.1 lb		8.4 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component epoxy finish coat suitable for brush, roller and spray application.

INTENDED USES

As a tough, hard wearing finish for application over properly primed surfaces. Exhibits good abrasion resistance, and affords good protection against spills and splashes of a range of chemicals such as acids, alkalis, solvents, and salt solutions.

Suitable for use in a wide range of environments including offshore structures, petrochemical facilities, bridges, pulp and paper mills, and the power industry.

PRACTICAL INFORMATION FOR INTERGARD 740

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	51% ± 3% (depends on colour)
Typical Thickness	50 microns (2 mils) dry equivalent to 98 microns (3.9 mils) wet
Theoretical Coverage	10.20 m ² /litre at 50 microns d.f.t and stated volume solids 409 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	12 hours	40 hours	40 hours	Extended ¹
15°C (59°F)	8 hours	30 hours	30 hours	Extended ¹
25°C (77°F)	3 hours	16 hours	16 hours	Extended ¹
40°C (104°F)	2 hours	11 hours	11 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 27°C (81°F); Part B 29°C (84°F); Mixed 28°C (82°F)	
Product Weight	1.34 kg/l (11.2 lb/gal)	
VOC	3.50 lb/gal (420 g/l) 344 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Intergard 740 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intergard 740 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 740.

Concrete, Pre-Cast Blockwork etc.

Intergard 740 is suitable for application to concrete. For the first coat it is recommended that Intergard 740 is thinned 10-15% by International Thinners in order to provide good penetration of the concrete substrate and act as a primer / sealer coat.

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 6%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also be sweep blasted (preferred) or acid etched to remove laitence.

Plaster, Cement Render, Concrete etc.

Surface should be clean, dry and free from contamination. Remove old, loose or flaking paint. Fill and sand minor defects.

Damp patches, oil staining, bitumen bleed, nicotine deposits, efflorescence and rust discolouration must either be treated at source, or better, the cause of such stains/defects removed. Existing mould, algae and other growth must be killed before commencing work. Domestic strength bleach diluted 1:4 with water or a proprietary fungicide solution should be used. Two treatments may be necessary, after which the area must be washed down and scrubbed to remove residues. Ideally, to prevent future infestations the conditions which support growth should be identified and cure sought.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	11 hours	10 hours	8 hours	2 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Recommended	Typically 40 microns (1.6 mils) can be achieved		
Roller	Recommended	Typically 40 microns (1.6 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

When applying Intergard 740 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

In common with all epoxy coatings Intergard 740 may chalk or discolour on exterior exposure. Rate of chalking will depend upon climatic conditions, will have no adverse effect upon anti-corrosive property and will be limited to a thin surface layer.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Over-application of Intergard 740 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

For brush and roller application, and in some colours, two coats of Intergard 740 may be required to give uniform coverage.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following primers are suitable for Intergard 740:

Intercure 200	Interplus 770
Intercure 420	Interseal 670HS
Intergard 251	Interzinc 42
Intergard 269	Interzinc 52
Intergard 475HS	Interzinc 315
InterH2O 401	Interzone 505
Interline 944	Interzone 954
Interplus 256	Interzone 1000
Interplus 356	

When Intergard 740 is used as a primer for concrete the following products are suitable topcoats:

Interfine 629HS	Interthane 990
Intergard 740	Interzone 505
Interline 850	Interzone 954
Interline 944	Interzone 1000
Interseal 670HS	

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	24.8 kg		4.2 kg	
	5 US gal	56 lb		8.4 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component solvent free epoxy filler, which is easily mixed and applied by knife or trowel.

INTENDED USES

As a filler for correctly prepared, corroded and pitted steel prior to coating maintenance.

Recommended for application to surrounding area of impressed current anodes to resist voltage and attack by alkali.

PRACTICAL INFORMATION FOR INTERGARD 821

Colour	Grey
Gloss Level	Matt
Volume Solids	100%
Typical Thickness	20000 microns (800 mils) dry equivalent to 20000 microns (800 mils) wet
Theoretical Coverage	0.05 m ² /litre at 20,000 microns d.f.t. and stated volume solids 2 sq.ft./US gallon at 800 mils d.f.t. and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Trowel, Knife

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	9 hours	42 hours	42 hours	5 days
15°C (59°F)	8 hours	36 hours	36 hours	4 days
25°C (77°F)	6 hours	24 hours	24 hours	2 days
40°C (104°F)	90 minutes	11 hours	11 hours	1 day

REGULATORY DATA

Flash Point (Typical) Part A 65°C (149°F); Part B 62°C (144°F); Mixed 62°C (144°F)

Product Weight 0.70 kg/l (5.8 lb/gal)

VOC 0.61 lb/gal (74 g/lit) EPA Method 24

126 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For immersion service, Intergard 821 must be applied to surfaces blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. However, for atmospheric exposure Intergard 821 may be applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 75 microns (3 mils) is recommended.

Primed Steelwork

Intergard 821 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intergard 821 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 821

Pitted Areas

Blast out to near white metal Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If cleaning can not be carried out effectively by blasting, mechanically grind out the pits using a suitable carborundum head. Apply appropriate primer before oxidation occurs. Apply the Intergard 821 within the overcoating interval specified for the primer. Ensure the area is clean and dry prior to application.

Anode Shield Areas

New Building and Major Refurbishment: Where necessary, remove weld spatter and smooth weld seams and sharp edges. Blast clean to near white metal Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

Repair: Prepare bare areas of steel by blasting to near white metal Sa2½ (ISO 8501-1:2007) or SSPC-SP10. Feather or chip back surrounding areas to a sound edge. Roughen the exposed edge of the existing Intergard 821 to provide a mechanical key. Overlap the Intergard 821 onto this abraded area.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed, it must be used within the working pot life specified. Mixing should be carried out on a large, clean, smooth sheet of steel, tinplate or hardboard, using palette knives, scraper blades or trowels. DO NOT ADD WATER OR THINNERS TO THE MIX. Thoroughly mix the base (Part A) with curing agent (Part B) in the correct proportions with a knife or trowel.			
Mix Ratio	1 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	3 hours	2 hours	1 hour	15 minutes
Airless Spray	Not suitable			
Air Spray (Pressure Pot)	Not suitable			
Trowel	Recommended	APPLY BY TROWEL OR KNIFE ONLY		
Thinner	Not suitable	DO NOT THIN		
Cleaner	International GTA822			
Work Stoppages	Do not allow material to remain on the used knife or trowel. Thoroughly wash all equipment with GTA822. Once units of paint have been mixed they should NOT be re-sealed and it is advised after prolonged stoppages that work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. Frequency of cleaning will depend upon amount trowelled, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 821 is a specialist product designed for a range of specified end uses. Detailed application instructions can be obtained from International Protective Coatings.

Application of Intergard 821 is normally performed using a trowel, pallette knife or putty knife. Applicators should wear rubber nitrile gloves and appropriate skin protection.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

In humid conditions, the surface may develop a 'sweat' which must be washed off with fresh water before overcoating.

When used in a marine environment the schemes and overcoating intervals utilised may differ.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following primers are recommended for Intergard 821:

Intergard 269
Interline 982

The following topcoats are recommended for Intergard 821:

Intergard 400
Interline 925
Interline 944
Interseal 670HS
Interzone 954
Interzone 1000

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	2.5 litre	3 litre	2.5 litre	3 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	2.3 kg		1.9 kg	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Water Borne Epoxy

PRODUCT DESCRIPTION A high performance, low VOC, water borne two component epoxy with a high gloss finish.

INTENDED USES A tough, hard wearing chemically resistant epoxy finish suitable for most circumstances where the odour or emissions from solvent based coatings are unacceptable.

For use on structural steel and equipment in a range of aggressive environments including those found in chemical and petrochemical plants, pulp and paper mills and power stations in both new construction and industrial maintenance situations, under controlled conditions.

Suitable for application to correctly prepared concrete floors and walkways.

PRACTICAL INFORMATION FOR INTERGARD 1735

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	50% ± 3% (depends on colour)
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 100-150 microns (4-6 mils) wet
Theoretical Coverage	10 m ² /litre at 50 microns d.f.t and stated volume solids 401 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Airless Spray, Brush, Roller
Drying Time	

Overcoating interval with self

Temperature	Touch Dry	Hard Dry	Minimum	Maximum
10°C (50°F)	3 hours	30 hours	30 hours	Extended ¹
15°C (59°F)	2 hours	22 hours	22 hours	Extended ¹
25°C (77°F)	1 hour	12 hours	12 hours	Extended ¹
40°C (104°F)	30 minutes	5 hours	5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point	Part A >101°C (214°F); Part B >101°C (214°F); Mixed >101°C (214°F)		
Product Weight	1.21 kg/l (10.1 lb/gal)		
VOC	66 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Water Borne Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Strict adherence to all cleanliness standards is essential for application of water based coatings.

Primed Surfaces

Intergard 1735 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intergard 1735 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 1735.

Plaster, Cement Render, Concrete etc.

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 6%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also be sweep blasted (preferred) or acid etched to remove laitence.

Surface should be clean, dry and free from contamination. Remove old, loose or flaking paint. Fill and sand minor defects.

Damp patches, oil staining, bitumen bleed, nicotine deposits, efflorescence and rust discolouration must either be treated at source, or better, the cause of such stains/defects removed. Existing mould, algae and other growth must be killed before commencing work. Domestic strength bleach diluted 1:4 with water or a proprietary fungicide solution should be used. Two treatments may be necessary, after which the area must be washed down and scrubbed to remove residues. Ideally, to prevent future infestations the conditions which support growth should be identified and cure sought.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	1 hour	1 hour	2 hours	2 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Recommended	Typically 50 microns (2.0 mils) can be achieved		
Roller	Recommended	Typically 50 microns (2.0 mils) can be achieved		
Thinner	International GTA991 (or clean water)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA991 (or clean water)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with clean water followed by International GTA991. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with clean water followed by International GTA991. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Water Borne Epoxy

PRODUCT CHARACTERISTICS

Apply by air or airless spray. Thoroughly flush equipment with International GTA991 thinner, or alcohol, followed by water prior to use. To obtain maximum edge protection and film build, airless or air spray application is recommended. Application by other methods, e.g. brush or roller, may require more than one coat.

As with all water borne coatings careful control of application conditions is required to ensure good performance.

The following basic parameters must be adhered to:

Intergard 1735 must be protected from freezing at all times during storage.

The minimum steel temperature for application must be above 10°C (50°F), and be at least 3°C (5°F) above dew point.

The relative humidity should be lower than 70% otherwise drying and overcoating times will be severely extended.

Good airflow is essential around the object being painted [minimum air speed 0.1m/sec (4 inches/sec)].

Minor areas which are difficult to ventilate should be brush applied to prevent over-application.

Application below the minimum film forming temperature (M.F.F.T.) of the coating and/or poor ventilation will result in poor film coalescence and a powdery cracked film which will require removal and re-application.

With Intergard 1735, no increase in viscosity is observed after mixing, even after long periods. However, if the stated pot lives are exceeded then the film formed on curing will have inferior properties and will not give the specified level of performance. Unlike solvent based epoxies, the pot life of Intergard 1735 is shorter at low temperatures.

For application to plaster, cement render, concrete, blockwork etc., it is recommended that Intergard 1735 is thinned by 10-20% for use as a primer / sealer coat. One or two coats should be applied to provide good penetration and sealing of the substrate prior to application of a further full coat of Intergard 1735.

Intergard 1735 is not suitable as a primer for systems designed for permanent water immersion.

In common with all epoxies Intergard 1735 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 1735 is capable of application to sound alkyd and to single pack water based systems to allow upgrading for chemical and wear resistance.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Intergard 1735:

Water borne

InterH2O 280
InterH2O 401

Solvent borne

Intercure 200	Interseal 670HS
Intercure 420	Interzinc 42
Intergard 251	Interzinc 52
Intergard 269	Interzinc 315
Intergard 475HS	

For other suitable primers, consult International Protective Coatings.

Water Borne Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	4 litre	5 litre	1 litre	1 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT	Unit Size	Part A		Part B	
	5 litre	5.5 kg		1.2 kg	
	5 US gal	45.2 lb		9.5 lb	
U.N. Shipping No. Non Hazardous					
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from freezing at all times during storage.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 01/12/2011.

 International, International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component epoxy anti-corrosive primer pigmented with zinc phosphate.

INTENDED USES

For use on properly prepared surfaces both in new construction and as an industrial maintenance primer for a wide range of anti-corrosive coatings systems. For use in the offshore, petrochemical, chemical, pulp and paper and bridge industries.

PRACTICAL INFORMATION FOR INTERGARD 2510

Colour	Red, Grey
Gloss Level	Semi Gloss
Volume Solids	78% ± 2%
Typical Thickness	75-250 microns (3-10 mils) dry equivalent to 96-321 microns (3.8-12.8 mils) wet
Theoretical Coverage	10.40 m ² /litre at 75 microns d.f.t and stated volume solids 417 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	3 hours	14 hours	14 hours	Extended ¹
10°C (50°F)	2 hours	6 hours	4 hours	Extended ¹
25°C (77°F)	90 minutes	3 hours	2 hours	Extended ¹
40°C (104°F)	60 minutes	2 hours	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 26°C (79°F); Part B 26°C (79°F); Mixed 26°C (79°F)		
Product Weight	1.58 kg/l (13.2 lb/gal)		
VOC	163 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 2510, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 40-75 microns (1.6-3.0 mils) is recommended.

Shop Primed Steel

Weld seams and damaged areas should be abrasive blast cleaned to a minimum Sa2½ standard (ISO 8501-1:2007) or SSPC SP6. Where this is not practical, preparation to SSPC SP11 is acceptable.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 3 hours	10°C (50°F) 2 hours	25°C (77°F) 60 minutes	40°C (104°F) 35 minutes
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Recommended	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Thinner	International GTA220 (or GTA415)	Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA822 (or GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822 or International GTA415. Once units of paint have been mixed, they should not be resealed and it is advised that after prolonged stoppages, work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Intergard 2510 is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6-12 months exposure (depending upon the corrosivity of the environment) provided it is adequately cleaned and any areas of mechanical damage repaired.

Over-application of Intergard 2510 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

When applying Intergard 2510 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Intergard 2510 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

The coating will appear hard dry after 26 hours at temperatures below 0°C (32°F); however minimum overcoating interval at 0°C (32°F) and -5°C (23°F) is 40 hours and 48 hours, respectively.

Intergard 2510 is capable of curing at temperatures lower than -5°C (23°F) but cure time will be significantly prolonged at these temperatures.

This product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Recommended topcoats are:

Interfine 629HS
Interfine 691
Interthane 870
Interthane 990

For other suitable topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		27.7 kg		6.9 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 17/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast curing epoxy primer for increased productivity pigmented with zinc phosphate to provide added anti-corrosive performance.

INTENDED USES

Specifically designed for use as an anti-corrosive epoxy primer in combination with the International 3200 product series, and other approved topcoats, for the protection of construction heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

The main features of Intergard 3210 are:

- Suitable for manual mix or plural component application equipment
- Good adhesion properties over correctly prepared steel, galvanised steel, stainless steel and aluminium substrates
- Lead chromate free
- Smooth finish to contribute to overall aesthetics
- Fast drying, handling and overcoating properties to increase productivity and efficiency

PRACTICAL INFORMATION FOR INTERGARD 3210

Colour	Colours available on request			
Gloss Level	20-30 gloss units at 60° angle			
Volume Solids	67%			
Typical Thickness	40-80 microns (1.6-3.2 mils) dry equivalent to 60-119 microns (2.4-4.8 mils) wet			
Theoretical Coverage	13.40 m ² /litre at 50 microns d.f.t and stated volume solids 537 sq.ft/US gallon at 2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air spray, Brush, Plural Component Airless Spray, Roller			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	35 minutes	3.5 hours	3.5 hours	2 weeks
25°C (77°F)	20 minutes	2 hours	2 hours	2 weeks
40°C (104°F)	10 minutes	30 minutes	30 minutes	2 weeks
60°C (140°F)	6 minutes	20 minutes	20 minutes	2 weeks

REGULATORY DATA

Flash Point (Typical)	Part A 27°C (81°F); Part B 28°C (82°F); Mixed 27°C (81°F)	
Product Weight	1.5 kg/l (12.5 lb/gal)	
VOC	219 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)
See Product Characteristics section for further details		

Protective Coatings

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 3210, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-75 microns (1.6-3.0 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or sweep blast to a standard similar to SSPC-SP7 or ISO 8501-1:2007 Sa1 to create a surface profile.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	3 part(s) : 1 part(s) by volume		
Working Pot Life	10°C (50°F)	25°C (77°F)	40°C (104°F)
	6 hours	3 hours	2 hours
Plural Component Airless Spray	Recommended		
Airless Spray	Recommended		
	Tip Range 0.33-0.48 mm (13-19 thou)		
	Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
	For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Brush	Small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA220 (or GTA415)	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA220 (or GTA415)		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA220. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Epoxy

PRODUCT CHARACTERISTICS

Intergard 3210 is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Intergard 3210 is designed to provide very rapid overcoating and quick handling time when force cured at temperatures at or above 40°C (104°F).

The minimum overcoating time is recommended as the hard dry time of the film at the quoted temperature. Please consult International Protective Coatings for wet-on-wet application recommendations.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thicknesses.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

In common with all epoxies Intergard 3210 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intergard 3210 is designed for application to correctly prepared steel, galvanised steel, stainless steel and aluminium substrates. If necessary, application over prefabrication blast primers can be performed. Consult International Protective Coatings for further details.

Recommended topcoats are:

- Interlac 3220HG
- Interlac 3220SG
- Interthane 3230G
- Interthane 3230HG
- Interthane 3230M
- Interthane 3230SG

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		26.9 kg		5.3 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Alkyd

PRODUCT DESCRIPTION

A single component alkyd gloss enamel finish.

INTENDED USES

Maintenance coating for use in a wide range of industrial environments including offshore, petrochemical and chemical plants.

Suitable for areas of limited chemical exposure where an economical single pack finish coat is required.

As a cosmetic finish coat for alkyd based systems intended for both interior and exterior exposure.

PRACTICAL INFORMATION FOR INTERLAC 665

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	48% ± 3% (depends on colour)
Typical Thickness	40-50 microns (1.6-2 mils) dry equivalent to 83-104 microns (3.3-4.2 mils) wet
Theoretical Coverage	12 m ² /litre at 40 microns d.f.t and stated volume solids 481 sq.ft/US gallon at 1.6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	14 hours	48 hours	24 hours	Extended ¹
15°C (59°F)	10 hours	36 hours	24 hours	Extended ¹
25°C (77°F)	6 hours	24 hours	24 hours	Extended ¹
40°C (104°F)	4 hours	8 hours	14 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	40°C (104°F)
Product Weight	1.11 kg/l (9.3 lb/gal)
VOC	3.50 lb/gal (420 g/lit) 364 g/kg
	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Alkyd

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interlac 665 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interlac 665 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interlac 665.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Brush	Recommended	Typically 25-40 microns (1.0-1.6 mils) can be achieved	
Roller	Recommended	Typically 25-40 microns (1.0-1.6 mils) can be achieved	
Thinner	International GTA004	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA004		
Work Stoppages	Thoroughly flush all equipment with International GTA004. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with GTA004. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Alkyd

PRODUCT CHARACTERISTICS

Interlac 665 is designed primarily for site application. Airless spray application at factory can easily lead to over-application with slow through drying and difficulty in handling. Over-application can also cause wrinkling on overcoating after ageing. Alternative alkyd finishes are available which are more suitable for factory use. Contact International Protective Coatings for information on these products.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

As with all alkyd systems, Interlac 665 has limited chemical and solvent resistance and is not suitable for use in immersion situations or in conditions of continuous condensation.

Interlac 665 is not designed for application over epoxies or polyurethanes, and should not be applied over zinc based primers because of dangers of saponification of the alkyd resin and consequent adhesion loss.

For brush and roller application, and in some colours, two coats of Interlac 665 may be required to give uniform coverage.

Available in a wide range of colours produced via the Chromascan system.

Due to local transportation regulations and locally sourced mineral spirits, this product has a flashpoint of 41°C (106°F) in the USA. There is no detrimental effect on product performance.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interlac 665 is only suitable for application over alkyd or oleoresinous priming systems, e.g.:

Interprime 198

For other suitable primers, consult International Protective Coatings.

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		
		Vol	Pack
		20 litre	20 litre
	5 US gal	5 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		24.2 kg
	5 US gal		49.4 lb
STORAGE	Shelf Life	24 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Alkyd

PRODUCT DESCRIPTION

A single component, rapid drying modified alkyd primer/finish, designed to provide both anti-corrosive properties and a decorative finish in a single coat.

INTENDED USES

Interlac 789 has been designed for use as a single coat system to afford anti-corrosive protection for structural steelwork exposed to the environment where cosmetic appearance is important, e.g. in dry internal areas or low corrosivity external environments.

It is particularly suited for use as a rapid drying versatile primer/finish designed to maximise the steel throughput in fabrication yards.

PRACTICAL INFORMATION FOR INTERLAC 789

Colour	Available in a wide range via the Chromascan system
Gloss Level	Eggshell
Volume Solids	63%± 3% (depends on colour)
Typical Thickness	100 microns (4 mils) dry equivalent to 159 microns (6.4 mils) wet
Theoretical Coverage	6.30 m ² /litre at 100 microns d.f.t and stated volume solids 253 sq.ft/US gallon at 4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	115 minutes	5 hours	6 hours ¹	Extended ²
15°C (59°F)	105 minutes	4.5 hours	5 hours ¹	Extended ²
25°C (77°F)	80 minutes	4 hours	4 hours ¹	Extended ²
40°C (104°F)	60 minutes	3 hours	2 hours ¹	Extended ²

¹ Minimum overcoating times refer to use of recommended topcoats, and may be increased if other topcoats are applied. See Product Characteristics and System Compatibility for further information.

² See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	31°C (88°F)	
Product Weight	1.57 kg/l (13.1 lb/gal)	
VOC	2.50 lb/gal (300 g/l) 202 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Modified Alkyd

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interlac 789, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Interlac 789 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Brush	Suitable - Small touch-up areas only	Typically 50 microns (2.0 mils) can be achieved	
Roller	Suitable - Small touch-up areas only	Typically 50 microns (2.0 mils) can be achieved	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA007		
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Modified Alkyd

PRODUCT CHARACTERISTICS

Interlac 789 is designed primarily for the protection of structural steelwork. Alkyd based anti-corrosive products are most suitable for the protection of steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO 12944 C1, C2 and C3.

Interlac 789 is available in a wide colour range, however, it is in the nature of all alkyd topcoats to be subject to a degree of yellowing and chalking and this will result in the loss of gloss and fading of the specified colour over a period of time.

As Interlac 789 is designed as a single coat primer/finish, it is not normally applied as a multiple coat system other than for repair of mechanical damages, touch-up etc. The minimum overcoating times refer to overcoating Interlac 789 with the approved alkyd or oil based topcoats listed below. The use of alternative topcoats can result in increased minimum overcoating times and should be avoided.

Excessive film thickness and/or over-application of Interlac 789 will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interlac 789 to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interlac 789.

Interlac 789 is not designed for exposure in alkaline or acidic environments.

Interlac 789 should not be used in immersed environments.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interlac 789 is normally applied as a single coat anti-corrosive primer/finish. Application of a further cosmetic topcoat on site is possible.

Recommended topcoats are:

Interlac 645
Interlac 658
Interlac 665

For further advice on system compatibility contact International Protective Coatings.

Modified Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		
		Vol	Pack
	20 litre	20 litre	20 litre
5 litre	5 litre	5 litre	

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)	Unit Size	
	20 litre	33.1 kg
5 litre	8.3 kg	

STORAGE	Shelf Life	
	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Alkyd

PRODUCT DESCRIPTION

A single component, high gloss, low VOC, high solids, fast curing, modified alkyd primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a decorative finish in a single coat.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interlac 3220HG is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interlac 3220HG are:-

- Good adhesion properties over correctly prepared steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Improved gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERLAC 3220HG

Colour	Colours available on request			
Gloss Level	85+ gloss units at 60° angle			
Volume Solids	63% ± 2%			
Typical Thickness	60-120 microns (2.4-4.8 mils) dry equivalent to 95-190 microns (3.8-7.6 mils) wet			
Theoretical Coverage	7.90 m ² /litre at 80 microns d.f.t and stated volume solids 316 sq.ft/US gallon at 3.2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	105 minutes	4.5 hours	4.5 hours	2 weeks
25°C (77°F)	80 minutes	4 hours	4 hours	2 weeks
40°C (104°F)	15 minutes	3 hours	3 hours	2 weeks
60°C (140°F)	10 minutes	2.5 hours	2.5 hours	2 weeks

REGULATORY DATA

Flash Point (Typical)	31°C (88°F)		
Product Weight	1.4 kg/l (11.7 lb/gal)		
VOC	231 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Protective Coatings

Alkyd

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interlac 3220HG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended.

Stainless Steel

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interlac 3220HG must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interlac 3220HG.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Airless Spray	Recommended	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA007		
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Alkyd

PRODUCT CHARACTERISTICS

Interlac 3220HG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Alkyd based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Interlac 3220HG, as is common with all alkyd systems, will be subject to a degree of yellowing and chalking and this will result in the loss of gloss and fading of the specified colour over a period of time.

The gloss level quoted is achieved at cure temperatures between 40-60°C (104-140°F). At lower temperatures, lower gloss levels will be observed.

Excessive film thickness and/or over-application of Interlac 3220HG will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interlac 3220HG to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interlac 3220HG.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interlac 3220HG can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Intergard 3210

Interlac 3220HG is normally topcoated with itself, for other suitable topcoats please consult International Protective Coatings.

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		29.8 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Alkyd

PRODUCT DESCRIPTION

A single component, semi gloss, low VOC, high solids, fast curing, modified alkyd primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a decorative finish in a single coat.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interlac 3220SG is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interlac 3220SG are:-

- Good adhesion properties over correctly prepared steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Improved gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERLAC 3220SG

Colour	Colours available on request			
Gloss Level	50-60 gloss units at 60° angle			
Volume Solids	67% ± 2%			
Typical Thickness	60-120 microns (2.4-4.8 mils) dry equivalent to 90-179 microns (3.6-7.2 mils) wet			
Theoretical Coverage	8.40 m ² /litre at 80 microns d.f.t and stated volume solids 336 sq.ft/US gallon at 3.2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	105 minutes	4.5 hours	4.5 hours	2 weeks
25°C (77°F)	80 minutes	4 hours	4 hours	2 weeks
40°C (104°F)	15 minutes	3 hours	3 hours	2 weeks
60°C (140°F)	10 minutes	2.5 hours	2.5 hours	2 weeks

REGULATORY DATA

Flash Point (Typical)	31°C (88°F)		
Product Weight	1.58 kg/l (13.2 lb/gal)		
VOC	180 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Protective Coatings

Alkyd

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interlac 3220SG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended.

Stainless Steel

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interlac 3220SG must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interlac 3220SG.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Airless Spray	Recommended	Tip Range 0.33-0.48 mm (13-19 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA007		
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Alkyd

PRODUCT CHARACTERISTICS

Interlac 3220SG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Alkyd based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Interlac 3220SG, as is common with all alkyd systems, will be subject to a degree of yellowing and chalking and this will result in the loss of gloss and fading of the specified colour over a period of time.

The gloss level quoted is achieved at cure temperatures between 40-60°C (104-140°F). At lower temperatures, lower gloss levels will be observed.

Excessive film thickness and/or over-application of Interlac 3220SG will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interlac 3220SG to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interlac 3220SG.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interlac 3220SG can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Intergard 3210

Interlac 3220SG is normally topcoated with itself, for other suitable topcoats please consult International Protective Coatings.

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		33.1 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Novolac

PRODUCT DESCRIPTION A high performance, highly crosslinked two component epoxy novolac tank lining, with excellent heat and solvent resistance.

INTENDED USES Suitable for internal lining of storage vessels and process vessels at elevated temperatures up to 130°C (266°F).

*See product characteristics for full information.

PRACTICAL INFORMATION FOR INTERLINE 399

Colour	Limited range
Gloss Level	Not applicable
Volume Solids	67%
Typical Thickness	85-125 microns (3.4-5 mils) dry equivalent to 127-187 microns (5.1-7.5 mils) wet
Theoretical Coverage	6.70 m ² /litre at 100 microns d.f.t and stated volume solids 269 sq.ft/US gallon at 4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Roller, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
10°C (50°F)	8 hours	16 hours	36 hours	5 days
15°C (59°F)	7 hours	12 hours	24 hours	4 days
25°C (77°F)	5 hours	8 hours	16 hours	3 days
40°C (104°F)	3 hours	6 hours	16 hours	2 days

REGULATORY DATA **Flash Point (Typical)** Part A 26°C (79°F); Part B 48°C (118°F); Mixed 24°C (75°F)

Product Weight 1.85 kg/l (15.4 lb/gal)

VOC 2.83 lb/gal (340 g/lt) EPA Method 24

199 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10. A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Interline 399 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Where local VOC regulations allow, surfaces may be primed with Interline 399 (thinned 10% GTA220) to 40 microns (1.5 mils) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

APPLICATION

Mixing	Interline 399 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	5.00 part(s) : 1.00 part(s) by volume			
Working Pot Life	10°C (50°F) 5 hours	15°C (59°F) 4 hours	25°C (77°F) 2 hours	40°C (104°F) 1 hour
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Suitable - Stripe coats only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA853 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Interline 399 Application Guidelines should be consulted prior to use.

Interline 399 is typically specified as a three coat system at 90 microns (3.6 mils) per coat to give a total coating system dry film thickness of 270 microns (10.8 mils). Exact specification for total dry film thickness will be dependent upon service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain optimum film build. The use of other methods, e.g. brush or roller, may require more than one coat and are suggested only for small areas and initial stripe coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Do not apply at steel temperatures below 10°C (50°F). The relative humidity during application and curing should not exceed 80%.

When applying Interline 399 in confined spaces ensure adequate ventilation.

Good ventilation throughout application and cure, and firm control of film thickness, are essential to ensure full removal of retained solvent and optimum performance of cured film. Total coating system film thickness must not exceed 350 microns (14 mils).

The curing times will vary depending upon dry film thickness and conditions that exist during application and throughout curing periods.

Return to Service

The following minimum cure times are recommended for Interline 399 to achieve its full chemical resistance properties.

<u>Temperature</u>	<u>Cure Schedule</u>
10°C (50°F)	14 days
15°C (59°F)	10 days
25°C (77°F)	7 days
35°C (95°F)	5 days
40°C (104°F)	4 days

Cure schedule refers to the minimum time at the specified substrate temperature prior to immersion in all chemicals as per the chemical resistance list.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coatings Interline 399 Application Guidelines for proper repair procedures.

Interline 399 is suitable for end uses which involve low salinity hot water, such as boiler houses, up to a temperature of 95°C (203°F). For higher temperature applications, please contact an International Paint representative.

This product has the following specification approvals:

DEF STAN 80-97 Annexe G for the lining of bulk aviation fuel tanks.

Spanish Norma INTA 164402-A.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

This system is self-priming and is not suitable for application over other primers.

Interline 399 should only be topcoated with itself, and should never be overcoated with another product.

Consult International Protective Coatings to confirm that Interline 399 is suitable for contact with the product to be stored.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 399 Application Guidelines

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during drying (Refer to product datasheets for typical drying times) to keep solvent concentrations within safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and drying. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16.67 litre	20 litre	3.33 litre	5 litre
	5 US gal	4.17 US gal	5 US gal	0.83 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	35.7 kg		3.96 kg	
	5 US gal	71.4 lb		8 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Phenolic

PRODUCT DESCRIPTION

A two component, chemically resistant, high solids, high build epoxy phenolic tank and pipe lining.

INTENDED USES

To provide corrosion protection for the internals of steel storage tanks and pipes containing a range of products, including crude oil, unleaded gasoline blends, MTBE, jet fuels, caustic solutions, potable water and a selected range of aromatic and aliphatic solvents.

NSF Certification is for tanks of 1500 gallons (5679 litres) or greater and pipes 48 inches (122 cm) or greater in diameter.



Certified to NSF/ANSI 61

PRACTICAL INFORMATION FOR INTERLINE 850

Colour	White, Grey
Gloss Level	Not applicable
Volume Solids	76%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 132-197 microns (5.3-7.9 mils) wet
Theoretical Coverage	6.10 m ² /litre at 125 microns d.f.t and stated volume solids 244 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	9 hours	24 hours	24 hours	30 days ¹
15°C (59°F)	8 hours	20 hours	20 hours	30 days ¹
25°C (77°F)	5 hours	8 hours	8 hours	30 days ¹
40°C (104°F)	3 hours	5 hours	5 hours	21 days ¹

¹ The values quoted relate to use within an enclosed tank environment. For situations where UV exposure between coats is likely, maximum overcoating intervals will be shorter. Contact International Protective Coatings for more details.

REGULATORY DATA

Flash Point (Typical) Part A 42°C (108°F); Part B 54°C (129°F); Mixed 43°C (109°F)

Product Weight 1.57 kg/l (13.1 lb/gal)

VOC 1.87 lb/gal (225 g/lit) EPA Method 24
143 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Phenolic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10. A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Interline 850 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

Where local VOC regulations allow, surfaces may be primed with Interline 850 (thinned 10-15% GTA420) to 40 microns (1.5 mils) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

Areas of breakdown, damage, weld seams etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 or power tool cleaned to Pt3 (JSRA SPSS:1984) or SSPC-SP11).

Concrete Substrates

Interline 850 is also suitable for application to concrete in certain conditions; please see Product Application Guidelines for further information.

APPLICATION

Mixing	Interline 850 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 1 hour	40°C (104°F) 30 minutes
Airless Spray	Recommended	Tip Range 0.53-0.68 mm (21-27 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Recommended - Small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Recommended - Small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA853 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Phenolic

PRODUCT CHARACTERISTICS

The detailed Interline 850 Application Guidelines should be consulted prior to use.

Interline 850 is typically specified as a two coat system at 125 microns (5 mils) per coat to give a total coating system dry film thickness of 250 microns (10 mils). Exact specification for total dry film thickness will be dependent upon service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

When used as a primer coat applied at 40 microns (1.5 mils) dry film thickness Interline 850 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required. As an alternative, a full coat may be applied, provided the overcoating intervals are adhered to and all surfaces are correctly cleaned and prepared prior to overcoating with Interline 850.

For potable water service, consult International Protective Coatings with regards to permissible thinning levels.

At temperatures below 15°C (59°F), it is recommended that Interline 850 is allowed a 15 minute induction period after mixing, prior to commencing application.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain optimum film build. The use of other methods, e.g. brush or roller, may require more than one coat and are suggested only for small areas and initial stripe coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

For general use, it is not recommended to apply Interline 850 at steel temperatures below 10°C (50°F). However for potable water storage only, Interline 850 may be applied at steel temperatures of 5°C (41°F) and above. Consult International Protective Coatings for specific cure schedules.

When applying Interline 850 in confined spaces ensure adequate ventilation.

For multi-coat applications, exposure to low temperatures during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

This product severely yellows when exposed to sunlight and should not be used on tank exteriors where colour stability is important.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coatings Interline 850 Application Guidelines for proper repair procedures.

Return to Service

The following minimum cure times are recommended for Interline 850

<u>Temperature</u>	<u>Schedule 1</u>	<u>Schedule 2</u>
10°C (50°F)	7 days	14 days
15°C (59°F)	4 days	10 days
25°C (77°F)	2 days	6 days
35°C (95°F)	36 hours	4 days
40°C (104°F)	24 hours	3 days

Schedule 1 refers to the minimum cure time at the specified substrate temperature prior to conducting a tank hydrotest or immersion in purely aliphatic petroleum products (e.g diesel or kerosene, however not gasoline or gasoline/alcohol blends).

Schedule 2 refers to the minimum cure time at the specified substrate temperature prior to immersion in all other chemicals as per the chemical resistance list.

These cure schedules do not take into consideration specific curing requirements for third party approvals, such as for potable water use.

For storage of cargoes above ambient temperatures, consult International Protective Coatings for further details.

This material is recommended for the storage of aviation fuel. It is also suitable for storage of unleaded gasoline. Interline 850 is not suitable for exposure to acidic conditions.

This product has the following specification approvals:

- US Military Specification MIL-PRF-4556F (Buff and White colours only).
- DEF STAN 80-97 Annexe G for the lining of bulk aviation fuel tanks.
- Spanish Norma INTA 164402-A.
- NSF certification is for tanks greater than 1500 gallons, pipes 48 inches in diameter or greater and for valves 4 inches in diameter or greater.
- Norwegian National Institute of Public Health for Use in Potable Water Tanks on Offshore Installations.
- Meets requirements of FDA CFR21-175.300 for direct dry food contact and liquid food contact according to condition of use E and food types I, II, III, IV-A, IV-B, V, VI-A, VI-B and VII.
- Certified to AS/NZS 4020:2005 for tanks greater than 40,000 mm²/litre. Minimum capacity 6 litres, minimum internal pipe diameter 10 cm.

Consult International Protective Coatings for specific approved specifications.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Generally, where VOC regulations allow, Interline 850 can be used as a self-priming system. Interline 982 can also be used in certain situations. Consult International Protective Coatings for specific recommendations.

For other suitable primers/topcoats, consult International Protective Coatings.

Consult International Protective Coatings to confirm that Interline 850 is suitable for contact with the product to be stored.

Epoxy Phenolic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 850 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during drying (Refer to product datasheets for typical drying times) to keep solvent concentrations within safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and drying. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	29 kg		4.3 kg	
	5 US gal	60.2 lb		8.6 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, solvent free, heavy duty epoxy tank lining.

INTENDED USES

For application to steel tank internals to provide corrosion resistance to a range of products including crude oil, white oils and potable water.

Suitable for application over concrete for lining and secondary containment purposes.

NSF Certification is for tanks greater than 1000 gallons (3785 litres).



Certified to NSF/ANSI 61

PRACTICAL INFORMATION FOR INTERLINE 925

Colour	Limited colour range available			
Gloss Level	Not applicable			
Volume Solids	100%			
Typical Thickness	300-600 microns (12-24 mils) dry equivalent to 300-600 microns (12-24 mils) wet 400-1,000 microns (16-40 mils) for use as a single coat on tank floors.			
Theoretical Coverage	2.50 m ² /litre at 400 microns d.f.t and stated volume solids 100 sq.ft/US gallon at 16 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Roller, Brush			
Drying Time				
			Overcoating Interval with recommended topcoats	
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	15 hours	36 hours	36 hours	2 days
15°C (59°F)	12 hours	24 hours	24 hours	2 days
25°C (77°F)	8 hours	18 hours	18 hours	1 day
40°C (104°F)	5 hours	7 hours	7 hours	12 hours

REGULATORY DATA

Flash Point (Typical) Part A >101°C (214°F); Part B >101°C (214°F); Mixed >101°C (214°F)

Product Weight 1.52 kg/l (12.7 lb/gal)

VOC 1.04 lb/gal (125 g/lit) 23 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10. A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

Interline 925 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Where local VOC regulations allow, surfaces may be primed with Interline 982 to 15-25 microns (0.6-1.0 mils) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

Interline 982 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required.

Concrete Surfaces

Refer to International Protective Coatings for specific recommendations.

APPLICATION

Mixing	Interline 925 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 2 hours	15°C (59°F) 90 minutes	25°C (77°F) 60 minutes	40°C (104°F) 30 minutes
Airless Spray	Recommended	Tip Range 0.53-0.66 mm (21-26 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Pressure Pot)	Not recommended			
Brush	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Thinner Cleaner	Not suitable	- DO NOT THIN		
	International GTA853 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

The detailed Interline 925 Application Guidelines should be consulted prior to use.

Exact specification for total dry film thickness and number of coats will be dependent upon service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

Apply by airless spray only. Application by other methods, e.g. brush or roller, may require more than one coat and is suggested for small areas only or initial stripe coating.

Heavily pitted areas should be stripe coated by brush, to ensure good "wetting" of the surface.

Interline 925 can be applied by standard airless spray equipment when the paint temperature is maintained above 30°C (86°F). At lower temperatures an in-line heater of a suitable pressure rating may be used to assist with pumping and atomisation of the product.

Surface temperature must always be a minimum of 3°C above dew point.

Do not apply at steel temperatures below 10°C (50°F).

The climatic conditions within the tank must be controlled to maintain a maximum relative humidity of 50% at temperatures between 10-15°C (50-59°F), and a relative humidity of maximum 60% at temperatures of 16°C (61°F) and above.

The relative humidity within the confines of the tank should be controlled using dehumidification equipment. Where such equipment is not available, a single coat application technique should be employed to avoid intercoat adhesion problems.

Where multi-coat systems are to be used, optimum intercoat adhesion is best achieved by keeping the overcoating interval as short as possible.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness and the coating system should be free of all pinholes or other holidays. Dry film thicknesses in excess of 500 microns (20 mils), can be checked using a suitable high voltage pulsating type holiday detector, set at 100 volts per 25 microns d.f.t. (100 volts per mil). Excessive voltage may produce a holiday in the coating film. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coatings Interline 925 Application Guidelines for detailed repair procedures.

Maximum chemical resistance is not attained until the film has completely cured. Cure is a function of temperature, humidity and film thickness. Normally films at 400 microns (16 mils) dry film thickness will exhibit full and complete cure for optimal chemical resistance in 7-10 days at 25°C (77°F). Curing times are proportionately shorter at elevated temperatures and longer at lower temperatures.

Interline 925 is not recommended for storage of aqueous media at temperatures in excess of 60°C (140°F).

Due to the presence of low molecular weight chemicals in the formulation, some VOC may be recorded when this product is tested in accordance with the UK-PG6/23(92), Appendix 3 and USA-EPA Method 24 protocols. This is due to the high temperatures used in the test procedures.

In common with all epoxies Interline 925 will chalk and discolour on exterior exposure. However, these phenomenon are not detrimental to chemical resistance performance.

This product has the following specification approvals:

BS6920:1988 for Contact with Drinking Water.

Norwegian National Institute of Public Health for Use in Potable Water Tanks on Offshore Installations.

Certified to NSF/ANSI Standard 61. NSF/ANSI Standard 61 certification is for tanks greater than 1,000 gallons and for pipes and valves which are 4 inches in diameter or greater. For NSF/ANSI standard 61 applications, Interline 925 should be applied at 450 microns (18 mils) dry film thickness and should be allowed to cure for 14 days at 25°C (77°F) for optimum service in potable water.

Meets permissible levels of extractable materials as stated in CFR21-175.300 (Micro Materials Report).

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interline 925 can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Interline 982

Ceilcote 680M (to be used as a sealer for concrete application)

Interline 925 should only be topcoated with itself, and should never be overcoated with another product.

Consult International Protective Coatings to confirm that Interline 925 is suitable for contact with the product to be stored.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 925 Application Guidelines

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	4 US gal	3 US gal	5 US gal	1 US gal	1 US gal

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
	20 litre	24.3 kg	8.7 kg
	4 US gal	40.8 lb	14.3 lb

U.N. Shipping No. Non Hazardous (Base) : 1760 (Curing Agent)

STORAGE	Shelf Life
	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Novolac Vinyl Ester

PRODUCT DESCRIPTION

A two component, heavy duty vinyl ester coating reinforced with glass flake to increase chemical and abrasion resistance.

A chemically resistant, vinyl ester coating which can be applied using standard airless spray equipment at material temperatures up to 35°C (95°F).

INTENDED USES

Interline 955 is primarily intended for the internal lining of chemical storage tanks and vessels where acidic chemicals or hot media are to be stored at temperatures up to 90°C (194°F).

Interline 955 has also found extensive use in a number of industry sectors, including refineries, pulp and paper plants and chemical plants where it has been widely used for coating steelwork in corrosive environments where frequent contact with aggressive chemicals, e.g. acids is likely to occur. Interline 955 is also suitable for application in areas where exposures to dry temperatures up to 130°C (266°F) are encountered.

PRACTICAL INFORMATION FOR INTERLINE 955

Colour	White, Buff
Gloss Level	Semi Gloss
Volume Solids	100% reactive, although determined volume solids depends upon the application conditions. A recommended working figure is 85%.
Typical Thickness	400-600 microns (16-24 mils) dry equivalent to 471-706 microns (18.8-28.2 mils) wetbased on 85% volume solids
Theoretical Coverage	2.10 m ² /litre at 400 microns d.f.t and 85% volume solids 85 sq.ft/US gallon at 16 mils d.f.t and 85% volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	5 hours	6 hours	6 hours	3 days
15°C (59°F)	4 hours	5 hours	5 hours	3 days
25°C (77°F)	4 hours	5 hours	5 hours	2 days
35°C (95°F)	4 hours	5 hours	5 hours	24 hours

These dry times have been obtained using the recommended amount of retarder for each temperature (see Product Characteristics).

REGULATORY DATA

Flash Point (Typical)	Part A 32°C (90°F); Part B 100°C (212°F); Mixed 32°C (90°F)		
Product Weight	1.2 kg/l (10.0 lb/gal)		
VOC	29 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Protective Coatings

Novolac Vinyl Ester

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Interline 955, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

If a holding primer is required for Interline 955 then the use of Interline 949 is advised (see system compatibility). Alternatively, the blast standard can be maintained by the use of dehumidification.

Shop Primed Steel

Prior to application of Interline 955, all shop primed steelwork must be re-blasted to a visual standard as outlined above.

APPLICATION

Mixing	Interline 955 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ul style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
	An optional retarder solution is available for this material. See Product Characteristics for details.			
Mix Ratio	98 part(s) : 2 part(s) by volume			
Working Pot Life	10°C (50°F) 1 hour	15°C (59°F) 1 hour	25°C (77°F) 40 minutes	35°C (95°F) 40 minutes
Airless Spray	Recommended	Tip Range 0.63-0.89 mm (25-35 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Pressure Pot)	Not recommended			
Brush	Suitable - small areas only	Typically 75 microns (3.0 mils) can be achieved		
Roller	Not recommended			
Thinner	Not suitable	DO NOT THIN		
Cleaner	International GTA853	N.B Clean all equipment immediately after use.		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning should be once every hour using GTA853 cooled to <15°C (59°F).			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Novolac Vinyl Ester

PRODUCT CHARACTERISTICS

The detailed Interline 955 Application Guidelines should be consulted prior to use.

Elevated storage temperatures reduce shelf life. Uncatalysed Interline 955 is stable for 6 months from date of manufacture when stored below 20°C (68°F) in its original sealed containers. Interline 955 should never be stored in direct sunlight. It is recommended that material temperatures be kept as low as possible via refrigeration if necessary in order to prolong shelf life and ensure a 1 hour pot life during airless spray application. It is important to take into consideration that material temperatures will increase following mixing. A recommended storage temperature range is 8°C-19°C (46°F-66°F).

Apply by airless spray only. Application by other methods, e.g. brush or roller, may require more than one coat and is suggested for small areas only or initial stripe coating.

This product must **not** be thinned as the use of thinners may severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C above dew point.

Maximum steel temperature at the time of application is 60°C (140°F) and maximum relative humidity during the application and cure period is 80%.

Interline 955 must be specified as a minimum of 2 coats at 400 microns (16 mils) per coat to give a total dry film thickness of not less than 800 microns (32 mils) in order to achieve optimum performance.

Interline 955 can be applied in a wide range of climatic conditions, including material temperatures up to 35°C (95°F). However, at material temperatures greater than 25°C (77°F) the use of a retarder solution is required in order to maintain the working pot life, allowing normal airless spray methods to be employed. The recommended level of retarder solution is as follows:-

<25°C (77°F)	No retarder required
25-35°C (77-95°F)	1 unit of retarder required

The retarder solution must always be added to the base prior to the addition of the initiator and mixed thoroughly using a power agitator. Where material temperatures are consistently high, i.e. >35°C (95°F), material should be refrigerated, consult International Protective Coatings for specific advice.

Although Interline 955 is 100% reactive, depending upon the application conditions, the practical volume solids may be lower and International Protective Coatings suggest a value of 85% for estimating spreading rate.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 15°C (59°F).

Maximum continuous dry temperature resistance for Interline 955 is 130°C (266°F).

Maximum temperature in immersed conditions for Interline 955 is 90°C (194°F).

Consult International Protective Coatings for temperature limits for specific cargoes.

Interline 955 is not intended to be used as a cosmetic finish and colour stability will not be achievable.

For storage of inorganic or organic acids, consult International Protective Coatings for specific advice on cargo compatibility, suitable painting schemes and procedures.

When surface temperatures exceed 35°C (95°F), or when exposed to direct sunlight, Interline 955 should be overcoated as soon as hard dry to avoid intercoat adhesion problems.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interline 955 can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Interline 949

This product is not recommended to be topcoated other than by:

Interline 955

For additional information, consult International Protective Coatings.

Consult International Protective Coatings to confirm that Interline 955 is suitable for contact with the product to be stored.

Novolac Vinyl Ester

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 955 Working Procedures

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during drying (Refer to product datasheets for typical drying times) to keep solvent concentrations within safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and drying. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	19.6 litre	20 litre	0.4 litre	0.5 litre
The optional retarder solution is available as 50ml in a 50ml container. For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		25.3 kg		0.5 kg	
	U.N. Shipping No.	Part A - 1263	Part B - 5105		
STORAGE	Shelf Life	6 months minimum at <20°C (68°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. During storage and shipment, Interline 955 initiator must not be exposed to temperatures exceeding 30°C (90°F). Refrigeration recommended.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 04/03/2013

Copyright © AkzoNobel, 04/03/2013.

 International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, solvent free, heavy duty epoxy tank lining.

INTENDED USES

For application to steel tank internals to provide corrosion resistance to a range of products including crude oil, white oils and potable water.

Suitable for application over concrete for lining and secondary containment purposes.

PRACTICAL INFORMATION FOR INTERLINE 975

Colour	Cream, White
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	300-600 microns (12-24 mils) dry equivalent to 300-600 microns (12-24 mils) wet 400-1000 microns (16-40 mils) for use as a single coat on tank floors. Thickness is dependent upon application method and specification.
Theoretical Coverage	2.50 m ² /litre at 400 microns d.f.t and stated volume solids 100 sq.ft/US gallon at 16 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors.
Method of Application	Airless Spray, Brush, Roller

Drying Time

			Overcoating interval with self	
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	15 hours	36 hours	36 hours	28 days ¹
15°C (59°F)	12 hours	24 hours	24 hours	28 days ¹
25°C (77°F)	7 hours	16 hours	16 hours	14 days ¹
40°C (104°F)	3 hours	6 hours	6 hours	14 days ¹

¹ The values quoted relate to use within an enclosed tank environment. For situations where UV exposure between coats is likely, maximum overcoating intervals will be shorter. Contact International Protective Coatings for more details.

REGULATORY DATA

Flash Point (Typical)	Part A >101°C (214°F); Part B >101°C (214°F); Mixed >101°C (214°F)		
Product Weight	1.33 kg/l (11.1 lb/gal)		
VOC	0.00 lb/gal (0 g/l)	USA - EPA Method 24	
	0 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

A sharp angular surface profile of 75-100 microns (3-4 mils) is recommended.

Interline 975 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Where local VOC regulations allow, surfaces may be primed with Interline 982 to 15-25 microns (0.5-1.0 mils) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

Interline 982 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required.

Concrete Surfaces

Refer to International Protective Coatings for specific recommendations.

APPLICATION

Mixing	Interline 975 must be applied in accordance with the Interline 975 system sheet and the detailed International Protective Coatings Recommended Working Procedures for application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
Mix Ratio	2.2 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	90 minutes	80 minutes	60 minutes	30 minutes
Airless Spray	Recommended	Tip Range 0.53-0.66 mm (21-26 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Pressure Pot)	Not recommended			
Brush	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Thinner	Not suitable - DO NOT THIN			
Cleaner	International GTA853 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

The detailed Interline 975 Application Guidelines should be consulted prior to use.

Exact specification for total dry film thickness and number of coats will be dependent upon service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

Apply by airless spray only. Application by other methods, e.g. brush or roller, may require more than one coat and is suggested for small areas only or initial stripe coating. Heavily pitted areas should be stripe coated by brush, to ensure good "wetting" of the surface.

Interline 975 is a solvent free high viscosity material and can be applied by standard airless spray equipment. Refer to Interline 975 Application Guidelines for detailed information.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Do not apply at steel temperatures below 10°C (50°F).

The climatic conditions within the tank must be controlled as recommended in the Interline 975 Application Guidelines.

The relative humidity within the confines of the tank should be controlled using dehumidification equipment. Where such equipment is not available, a single coat application technique should be employed to avoid intercoat adhesion problems.

Where multi-coat systems are to be used, optimum intercoat adhesion is best achieved by keeping the overcoating interval as short as possible.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays and verified using a suitable method as recommended in the Interline 975 Application Guidelines. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coatings Interline 975 Application Guidelines for detailed repair procedures.

Return to Service

The following minimum cure times are recommended for Interline 975 to achieve its full chemical resistance properties.

<u>Temperature</u>	<u>Cure Schedule</u>
7°C (45°F)	21 days
10°C (50°F)	14 days
15°C (59°F)	9 days
25°C (77°F)	7 days
35°C (95°F)	5 days
40°C (104°F)	4 days

Cure schedule refers to the minimum time at the specified substrate temperature prior to immersion in all chemicals as per the chemical resistance list. This does not take into consideration any specific curing requirements for third party approvals, such as for potable water use.

For storage of cargoes above ambient temperatures, consult International Protective Coatings for further details.

In common with all epoxies Interline 975 will chalk and discolour on exterior exposure. However, these phenomenon are not detrimental to chemical resistance performance.

This product has the following specification approvals:

- BS6920:2000 for contact with cold and hot potable water.
- Norwegian National Institute of Public Health for Use in Potable Water Tanks on Offshore Installations.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interline 975 can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Interline 982

Ceilmate 680M (to be used as a sealer for concrete application)

Interline 975 should only be topcoated with itself, and should never be overcoated with another product.

Consult International Protective Coatings to confirm that Interline 975 is suitable for contact with the product to be stored.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 975 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	4.5 US gal	3.17 US gal	5 US gal	1.33 US gal	2 US gal
	16 litre	11 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	4.5 US gal	43 lb		11.9 lb	
	16 litre	17.93 kg		5.45 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION A two component epoxy holding primer.

INTENDED USES

As a blast holding primer, for the temporary protection of freshly blasted steel during the application of tank linings.

As a versatile primer to maximise the effect of dehumidification utilised during the lining of tank internals.

A fully compatible tank primer which will maintain the optimum performance of the applied tank lining.

PRACTICAL INFORMATION FOR INTERLINE 982

Colour Primrose

Gloss Level Not applicable

Volume Solids 30%

Typical Thickness 15-40 microns (0.6-1.6 mils) dry equivalent to 50-133 microns (2-5.3 mils) wet

Theoretical Coverage 12 m²/litre at 25 microns d.f.t and stated volume solids
481 sq.ft/US gallon at 1 mils d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	45 minutes	5 hours	24 hours	28 days ¹
15°C (59°F)	30 minutes	3 hours	24 hours	28 days ¹
25°C (77°F)	20 minutes	90 minutes	24 hours	28 days ¹
40°C (104°F)	10 minutes	30 minutes	16 hours	28 days ¹

¹ The maximum overcoating interval will vary depending upon the topcoat system and the products to be stored. Please consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical) Part A 21°C (70°F); Part B 23°C (73°F); Mixed 21°C (70°F)

Product Weight 1.24 kg/l (10.3 lb/gal)

VOC 5.04 lb/gal (605 g/lt) EPA Method 24
488 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Interline 982, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Thin Film Systems

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Heavy Duty Systems & Glass Reinforced Systems

A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

This product is NOT recommended over hand prepared steel.

APPLICATION

Mixing	Interline 982 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	8.2 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 10 hours	15°C (59°F) 8 hours	25°C (77°F) 6 hours	40°C (104°F) 3 hours
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Release pressure from the material hose and thoroughly flush fluid line and spray gun with International GTA822. Do not re-pressurise equipment until ready to resume spraying operations, and ensure pot life limitations are adhered to.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy

PRODUCT CHARACTERISTICS

Interline 982 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required.

Heavily pitted areas should be stripe coated by brush, to ensure good "wetting" of the surface.

Surface temperature must always be a minimum of 3°C above dew point.

Do not apply at steel temperatures below 10°C (50°F).

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

When applying Interline 982 in confined spaces ensure adequate ventilation.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

Dry film thicknesses above 40 microns (1.6 mils) and below 15 microns (0.6 mils) may adversely affect appearance and performance.

For heavy duty and GRP systems excessive film thicknesses must be avoided, 15-25 microns (0.6-1.0 mil) must be specified if primer is required. To achieve this dry film thickness Interline 982 may be thinned to a maximum of 25%.

Over-application of Interline 982 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

This product has the following specification approvals:

- BS6920 Water Fittings & Byelaws Scheme as the primer for Interline 925.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following topcoats are recommended for Interline 982:

Interline 850	Interline 983
Interline 921	Interline 984
Interline 925	Interline 985

Consult International Protective Coatings to confirm that Interline 982 is suitable for contact with the product to be stored.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Tank Linings Working Procedures

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during drying (Refer to product datasheets for typical drying times) to keep solvent concentrations within safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and drying. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.83 litre	20 litre	2.17 litre	2.5 litre
	5 US gal	4.46 US gal	5 US gal	0.54 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	25.1 kg		2.4 kg	
	5 US gal	51.8 lb		5.2 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Phenolic

PRODUCT DESCRIPTION

A two component, solvent free chemically resistant heavy duty epoxy phenolic tank lining.

INTENDED USES

Interline 984 is intended as a lining for the protection of ferrous and non-ferrous substrates (including concrete). It may be used as a single or multi coat scheme, or as either a spray applied fibre reinforced Matcote system or a hand-lay glass reinforced system.

Interline 984 has been formulated to focus on Oil and Gas downstream lining opportunities with extended recoat interval designed to assist with the contract schedules associated with lining bulk storage tanks.

Interline 984 is compliant with EI1530 (Joint Industry Group standard). This is the quality assurance requirement for the manufacture, storage and distribution of aviation fuels to airports.

Interline 984 is resistant to crude oil at temperatures up to 90°C (194°F).

PRACTICAL INFORMATION FOR INTERLINE 984

Colour	Yellow, Green, White
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	300-600 microns (12-24 mils) when used as an unreinforced system for walls or as a laminate gel coat. 400-1,000 microns (16-40 mils) for use as a single coat on tank floors. 1,250-1,400 microns (50-56 mils) when used as a laminate with fibre glass. Thickness is dependent upon application method and specification.
Theoretical Coverage	Unreinforced: 2.50 m ² /litre at 400 microns d.f.t and stated volume solids 100 sq.ft/US gallon at 16 mils d.f.t and stated volume solids Laminate: Thickness and coverage are dependent upon the configuration of the surface to be coated
Practical Coverage	Allow appropriate loss factors
Method of Application	Plural Component Airless Spray, Airless Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
10°C (50°F)	10 hours	36 hours	36 hours	28 days ¹
15°C (59°F)	9 hours	20 hours	20 hours	28 days ¹
25°C (77°F)	6 hours	12 hours	12 hours	28 days ¹
40°C (104°F)	2 hours	5 hours	5 hours	10 days ¹

¹ The values quoted relate to use within an enclosed tank environment. For situations where UV exposure between coats is likely, maximum overcoating intervals will be shorter. Contact International Protective Coatings for more details.

REGULATORY DATA

Flash Point (Typical)	Part A >101°C (214°F); Part B 49°C (120°F); Mixed 75°C (167°F)	
Product Weight	1.33 kg/l (11.1 lb/gal)	
VOC	0.58 lb/gal (70 g/lt) 38 g/kg	EPA Method 24 (24 hours) EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Phenolic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10. A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

Interline 984 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Where local VOC regulations allow, surfaces may be primed with Interline 982 to 15-25 microns (0.6-1.0 mils) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

Interline 982 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required.

Laminate Systems

Prior to application of the laminate all weld seams, lap joints, plate edges or other designated areas should be caulked using Interline 921.

Gel Coat Application

Prior to application of the gel coat, the entire surface to be coated should be abraded to remove any protruding fibre glass strands or other irregularities. The surface should then be vacuum cleaned.

Concrete Surfaces

Refer to International Protective Coatings' Concrete Surface Preparation Guidelines for further information.

APPLICATION

Mixing	The detailed Interline 984 Application Guidelines should be consulted prior to use. Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
Mix Ratio	2 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 60 minutes	15°C (59°F) 50 minutes	25°C (77°F) 30 minutes	40°C (104°F) 15 minutes
Plural Component	Suitable		Consult International Protective Coatings for specific recommendations. See Product Characteristics	
Airless Spray	Recommended		Tip Range 0.53-0.68 mm (21-27 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)	
Air Spray (Pressure Pot)	Not recommended			
Brush	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 150-200 microns (6.0-8.0 mils) can be achieved		
Thinner	Not suitable	DO NOT THIN		
Cleaner	International GTA853 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Phenolic

PRODUCT CHARACTERISTICS

The detailed Interline 984 Application Guidelines should be consulted prior to use.

When utilising Interline 984 as a glass fibre laminate system, please refer to the detailed Interline 984 Technical Specification for Glass Fibre Reinforced Systems.

Exact specification for total dry film thickness and number of coats will be dependent upon service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

Interline 984 should be applied and inspected in accordance with the detailed Interline 984 Application Guidelines.

Heavily pitted areas should be stripe coated by brush, to ensure good "wetting" of the surface.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Do not apply at steel temperatures below 10°C (50°F).

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. Repaired areas should be rested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coating Interline 984 Application Guidelines for detailed repair procedures.

Return to Service

The following minimum cure times are recommended for Interline 984

<u>Temperature</u>	<u>Schedule 1</u>	<u>Schedule 2</u>
10°C (50°F)	3 days	10 days
15°C (59°F)	2 days	7 days
25°C (77°F)	1 day	6 days
35°C (95°F)	18 hours	4 days
40°C (104°F)	12 hours	3 days

Schedule 1 refers to the minimum cure time at the specified substrate temperature prior to conducting a tank hydrotest or immersion in purely aliphatic petroleum products (e.g diesel or kerosene, however not gasoline or gasoline/alcohol blends).

Schedule 2 refers to the minimum cure time at the specified substrate temperature prior to immersion in all other chemicals as per the chemical resistance list.

This material is recommended for the storage of aviation fuel. It is also suitable for storage of unleaded gasoline, although blends containing methanol may be detrimental.

For storage of cargoes above ambient temperatures, consult International Protective Coatings for further details.

In common with all epoxies Interline 984 will chalk and discolour on exterior exposure. However, these phenomenon are not detrimental to chemical resistance performance.

This product has the following specification approvals:

- Compliance with DEF-STAN 80-97 annex G for the lining of bulk aviation fuel tanks
- Spanish Norma INTA 164402-A
- Meets the performance standard, EI1541 which are the test requirements for EI1530 compliance
- DEP 30.48.00.31- Gen. systems LT1-N and LT1-M for crude oil service
- Compliant with the requirements of MIL PRF 23236

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interline 984 can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Interline 982

Ceilcote 680M (to be used as a sealer for concrete application)

This product can also be applied over Interline 921 caulk where this material has been specified.

Interline 984 should only be topcoated with itself, and should never be overcoated with another product.

Consult International Protective Coatings to confirm that Interline 984 is suitable for contact with the product to be stored.

Epoxy Phenolic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interline 984 Application Guidelines
- Interline 984 Technical Specification for Glass Fibre Reinforced Systems

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15 US gal	10 US gal	5 US gal	5 US gal	5 US gal
	18 litre	12 litre	20 litre	6 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	18 litre	17.15 kg		10.02 kg	
	15 US gal	113.9 lb		60.7 lb	
	U.N.Shipping No.	UN3082 (Part A) : UN2924 (Part B)			
STORAGE	Shelf Life	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. International Paint recommends storage above 10°C (50°F) at all times to ensure stability of the product.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 18/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Novolac

PRODUCT DESCRIPTION

A two component, chemically resistant phenolic epoxy novolac tank lining.

INTENDED USES

Interline 994 is designed for storage of a range of aggressive chemicals and solvents.

A chemically resistant lining system providing improved performance benefits:

- Excellent chemical resistance
- High temperature immersion resistance
- FDA compliant coating for the internal surface of storage tanks that will hold bulk foods and vegetable oils, including palm oils at temperatures up to 90°C (194°F)
- Easy to use, three coat thin film system
- Can be applied through normal airless spray equipment

Applications include linings in the Oil and Gas, Chemical, Mining and Water industry on assets such as storage vessels, pressure vessels, interior and exterior of piping and resistance to molten sulphur in the rail industry.

For use during new construction or maintenance and repair.

PRACTICAL INFORMATION FOR INTERLINE 994

Colour	Buff, Grey
Gloss Level	Semi Gloss
Volume Solids	70% ± 2%
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 143-286 microns (5.7-11.4 mils) wet
Theoretical Coverage	4 m ² /litre at 175 microns d.f.t and stated volume solids 160 sq.ft/US gallon at 7 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	6 hours	24 hours	60 hours	10 days
15°C (59°F)	5.5 hours	16 hours	50 hours	14 days
25°C (77°F)	3 hours	6 hours	36 hours	14 days
40°C (104°F)	2 hours	3 hours	16 hours	14 days

Overcoating data refers to application of second full coat over first full coat. See Page 3 for further information.

REGULATORY DATA

Flash Point (Typical)	Part A 24°C (75°F); Part B 27°C (81°F); Mixed 25°C (77°F)	
Product Weight	1.67 kg/l (13.9 lb/gal)	
VOC	2.42 lb/gal (290 g/l) 187 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Epoxy Novolac

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

The preferred method of holding the blast standard is by dehumidification.

Interline 994 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Areas of breakdown, damage, weld seams etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 or power tool cleaned to Pt3 (JSRA SPSS:1984) or SSPC-SP11).

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
	It is recommended that Interline 994 is allowed a 20 minute induction period after mixing, prior to commencing application.			
Mix Ratio	7.38 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 6 hours	15°C (59°F) 5 hours	25°C (77°F) 3 hours	40°C (104°F) 1 hour
Airless Spray	Recommended	Tip Range 0.38-0.58 mm (15-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Brush	Recommended - Small areas only	Multiple coats may be required to achieve specified film thickness.		
Roller	Recommended - Small areas only	Multiple coats may be required to achieve specified film thickness.		
Thinner	DO NOT THIN			
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822 or International GTA415. Once units of paint have been mixed, they should not be resealed and it is advised that after prolonged stoppages, work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822 or International GTA415. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays. Do not exceed pot life limitations.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Novolac

PRODUCT CHARACTERISTICS

The detailed Interline 994 Application Guidelines should be consulted prior to use.

International Protective Coatings should be consulted to confirm that Interline 994 is suitable for the range of chemicals to be stored. Interline 994 provides high temperature immersion resistance, for example, pressurised process water up to 185°C (365°F). However, for in-service temperatures above 100°C (212°F), International Paint should be consulted for confirmation of specification. This product severely yellows when exposed to sunlight and should not be used on tank exteriors where colour stability is important.

For molten sulphur railcar service only, Interline 994 may be applied in one or two coats to achieve a total system dft of 200 ± 50 microns (8 ± 2 mils). After application, a force cure of 82°C (180°F) for 4 hours is required. Consult the Interline 994 Application Guidelines for detailed guidance.

Apply in good weather. Surface temperature must always be a minimum of 3°C (5°F) above dew point. When applying Interline 994 in confined spaces ensure adequate ventilation.

Interline 994 should be brought up to 15°C (59°F) prior to mixing and application. In winter months, paint should be stored above 15°C (59°F) for a minimum of 48 hours to achieve the required minimum paint temperature.

Interline 994 will not cure adequately below 10°C (50°F). At no time during the application must the steel temperature fall below 10°C (50°F) and this temperature must be maintained throughout the application and for a minimum period of 48 hours after application of the final coat of the system. In addition, the relative humidity must not exceed 50% for temperatures in the range 10-20°C (50-68°F), or exceed 80% for temperatures greater than 20°C (68°F).

The drying times and overcoating intervals may alter due to various on-site factors such as tank configuration, ventilation rates etc.

Further overcoating interval information;

	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
3rd coat over 2nd coat	42 hours	32 hours	20 hours	14 hours
Full coat over stripe coat	24 hours	24 hours	8 hours	4 hours

Stripe coating is an essential part of good working practice and as such should form part of any lining specification. Stripe coats may not be overcoated wet-on-wet for this product; refer to the Interline 994 Application Guidelines for information on drying intervals.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain optimum film build. The use of other methods, e.g. brush or roller, may require more than one coat and are suggested only for small areas and initial stripe coating.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coatings Interline 994 Application Guidelines for proper repair procedures.

Return to Service

The following minimum cure times are recommended for Interline 994

	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
Temporary (Water)*	4 days	4 days	4 days	4 days
Cargo	14 days	11 days	7 days	5 days

* Temporary immersion refers to water testing to highlight any "holidays" in the coating and must not exceed 7 days. On emptying, the tanks must be dried out.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interline 994 will normally be applied to correctly prepared steel substrates. Interline 994 should only be overcoated with itself.

Epoxy Novolac

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.56 litre	20 litre	2.38 litre	2.5 litre
	5 US gal	3.52 US gal	5 US gal	0.48 US gal	0.5 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg	lb	kg	lb
	20 litre	31.17 kg		2.29 kg	
	5 US gal	54.6 lb		4.5 lb	
STORAGE	Shelf Life	Part A - 12 months minimum at 25°C (77°F). Part B - 18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 04/12/2012.

 International and all product names mentioned in this publication are trademarks of, or licensed to, AkzoNobel.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, fast drying modified epoxy phosphate prefabrication primer for manual or automatic spray application.

INTENDED USES

To prime steel prior to the fabrication process.

Can be overcoated with a large range of coating systems which are suitable for use in a wide spectrum of environments ranging from water immersion, aggressive coastal to rural situations.

PRACTICAL INFORMATION FOR INTERPLATE 398

Colour	Red, Grey
Gloss Level	Matt
Volume Solids	25%
Typical Thickness	25 microns (1 mils) dry equivalent to 100 microns (4 mils) wet
Theoretical Coverage	10 m ² /litre at 25 microns d.f.t and stated volume solids 401 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	4 minutes	5 minutes	16 hours	Extended ¹
15°C (59°F)	4 minutes	4 minutes	12 hours	Extended ¹
25°C (77°F)	3 minutes	4 minutes	6 hours	Extended ¹
40°C (104°F)	2 minutes	3 minutes	4 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A -17°C (1°F); Part B 5°C (41°F); Mixed -17°C (1°F)	
Product Weight	1.10 kg/l (9.2 lb/gal)	
VOC	617 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interplate 398, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

This product is NOT recommended over hand prepared steel.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator.		
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	19 part(s) : 1 part(s) by volume		
Working Pot Life	10°C (50°F) 16 hours	15°C (59°F) 16 hours	25°C (77°F) 40°C (104°F) 16 hours 16 hours
Airless Spray	Recommended	Automatic plant: Tip range 0.45-0.53 mm (18-21 thou) Manual application: Tip range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 88 kg/cm ² (1,250 p.s.i.)	
Air Spray (Pressure Pot)	Suitable	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment	
Brush	Suitable	Only for small areas or touch ups	
Roller	Suitable	Only for small areas or touch ups	
Thinner	International GTA803	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA803		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA803. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA803. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Epoxy

PRODUCT CHARACTERISTICS

Satisfactory welding properties will only be obtained by strict control of application to the recommended film thickness. Over application of Interplate 398 will result in increased levels of weld fume on cutting and welding, and will also increase the porosity of the welds.

Best results will be obtained from application by automatic plant to preheated steel at a temperature of 40°C (104°F). Roller and handling damage can occur by using automatic plant at lower temperatures. When using manual spray application avoid dry spray and over-application.

Failure to obtain an even film and coverage of blast profile will result in rapid rash rusting on exposure to weathering.

The drying times quoted are for recommended dry film thickness at stated temperatures and will be extended by over-application.

Thicker films of Interplate 398 will provide longer periods of corrosion resistance, but will compromise welding, cutting and handling properties. In most environments to obtain 3-6 months protection 25 microns (1 mil) is the recommended dry film thickness

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

Note, this product dries too quickly to enable accurate wet film thickness measurements.

When overcoated with the correct anti-corrosive systems, Interplate 398 is suitable for underwater use and is compatible with cathodic protection systems.

For further information on application, handling and weathering properties, consult International Protective Coatings.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interplate 398 can be overcoated with a number of systems suitable for steel protection in a wide range of environments.

The following products can be applied directly to Interplate 398:

Intercure 200	Intergard 475HS
Intercure 420	InterH2O 401
Intercure 422	Interlac 645
Intercure 426	Interlac 665
Intercryl 525	Interprime 466
Intergard 251	Interseal 670HS
Intergard 269	Interzone 505
Intergard 410	Interzone 954

For other suitable topcoats/intermediates consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	19 litre	20 litre	1 litre	1 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		23.2 kg		1 kg	
	20 litre				
STORAGE	Shelf Life	6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Inorganic Zinc Silicate

PRODUCT DESCRIPTION Interplate 855 is a fast drying, two component, weldable zinc silicate pre-fabrication primer for application by manual or automatic spray.

INTENDED USES Interplate 855 is as a temporary protective primer for the coating of steelwork prior to the fabrication process. Interplate 855 is suitable for overcoating with a wide range of high performance coating systems for use in a variety of environments, including offshore structures, marine environments, chemical and petrochemical plants, power stations and bridges.

PRACTICAL INFORMATION FOR INTERPLATE 855

Colour	Red Brown, Grey
Gloss Level	Matt
Volume Solids	25% ± 2%
Typical Thickness	10-20 microns (0.4-0.8 mils) dry equivalent to 40-80 microns (1.6-3.2 mils) wet
Theoretical Coverage	16.70 m ² /litre at 15 microns d.f.t and stated volume solids 668 sq.ft/US gallon at 0.6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	3 minutes	8 minutes	7 days	Extended ¹
15°C (59°F)	3 minutes	8 minutes	7 days	Extended ¹
25°C (77°F)	3 minutes	5 minutes	7 days	Extended ¹
40°C (104°F)	3 minutes	3 minutes	7 days	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 5°C (41°F); Part B 10°C (50°F); Mixed 13°C (55°F)	
Product Weight	1.32 kg/l (11.0 lb/gal)	
VOC	5.24 lb/gal (628 g/l) 472 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Inorganic Zinc Silicate

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Where necessary, remove weld spatter and smooth weld seams and sharp edges.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interplate 855, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

The blast profile achieved should have an angular configuration. Blasting media should be steel grit of a nominal size of 0.6-1.0 mm (24-40 thou) or a mixture with steel shot of a nominal size of 0.6-1.4 mm (24-56 thou).

This product is NOT recommended over hand prepared steel.

APPLICATION

Mixing Interplate 855 is supplied in two parts, a Paste component (Part A) and a liquid Binder component (Part B). The liquid Binder (Part B) should be slowly added to the Paste (Part A) whilst stirring with a mechanical agitator. DO NOT ADD PASTE TO LIQUID. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed, it should be used within the working pot life specified.

This is a low viscosity material and agitation is required during application to ensure homogeneity is maintained.

Mix Ratio 0.67 part(s) : 1.00 part(s) by volume

Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	24 hours	24 hours	24 hours	7 hours

Airless Spray Recommended Automatic plant preferred:
Tip range 0.53-0.64 mm (21-25 thou)
Manual application:
Tip range 0.38-0.58 mm (15-23 thou)
Total output fluid pressure at spray tip not less than 60 kg/cm² (850 p.s.i.)

Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E

Air Spray (Conventional) Recommended Use suitable proprietary equipment

Brush Suitable - Touch up and small areas only

Roller Suitable - Touch up and small areas only

Thinner International GTA820 Do not thin more than allowed by local environmental legislation

Cleaner International GTA820

Work Stoppages Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with International GTA820. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up Clean all equipment immediately after use with International GTA820. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature, relative humidity and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Inorganic Zinc Silicate

PRODUCT CHARACTERISTICS

Satisfactory welding properties will only be obtained by strict control of application to the recommended film thickness. Over application of Interplate 855 will result in increased levels of weld fume on cutting and welding, and will also increase the porosity of the welds.

Interplate 855 is designed for application by automatic plant; if small areas are to be hand sprayed, take care to avoid dry spray and over-application.

Note, this product dries too quickly to enable accurate wet film thickness measurements.

Failure to obtain an even film and coverage of blast profile will result in rapid rash rusting on exposure to weathering.

The drying times quoted are for the recommended dry film thickness at the stated temperatures when using automated processes. Failure to adhere to these parameters can result in damage to equipment, rollers and disruption of the coated surface due to handling damage on stacking.

Thicker films of Interplate 855 will provide longer periods of corrosion resistance, but will compromise welding, cutting and handling properties. In most environments to obtain 6-9 months protection 25 microns (1 mil) is the recommended dry film thickness.

Satisfactory curing must be achieved before overcoating. The minimum relative humidity necessary for this is 50% RH. At relative humidities below 50%, curing will be severely retarded and humidity may need to be increased by steam or water spraying.

Interplate 855 is compatible with sacrificial and impressed current cathodic protection systems.

Prior to overcoating, Interplate 855 must be clean, dry and free from both soluble salts and excessive zinc corrosion products.

For further information on application, handling and weathering properties, consult International Protective Coatings.

This product has the following specification approvals:

- Lloyd's Register of shipping - Welding Approval of Prefabrication Primer
- Det Norske Veritas - Welding Approval on Blast Cleaned Steel

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interplate 855 can be overcoated with a wide range of high performance topcoats including:

Intercure 200	Interseal 670HS
Intercure 420	Interzone 505
Intergard 251	Interzone 954
Intergard 269	Interzone 1000
InterH2O 401	

Inorganic Zinc Silicate

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	8 litre	20 litre	12 litre	15 litre
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	17.7 kg		11.4 kg	
STORAGE	Shelf Life	Part A - 12 months minimum at 25°C (77°F). Part B - 6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Inorganic Zinc Silicate

PRODUCT DESCRIPTION

A two pack, heat resistant zinc silicate shop (pre-construction) primer providing good corrosion protection (even after heating up to 800°C (1472°F)), with minimum production of zinc salts. Suitable for high speed welding and cutting with excellent resistance to damage caused by welding, gas cutting and fairing thereby reducing secondary surface preparation requirements in comparison to typical zinc silicate products.

INTENDED USES

As a shop (pre-construction) primer for the protection of steel during fabrication and assembly. Suitable for use with controlled cathodic protection. Suitable for use in new construction situations.

PRACTICAL INFORMATION FOR INTERPLATE 937

Colour	Grey, Brown
Gloss Level	Matt
Volume Solids	23%
Typical Thickness	10-18 microns (0.4-0.7 mils) dry equivalent to 43-78 microns (1.7-3.1 mils) wet
Theoretical Coverage	17.70 m ² /litre at 13 microns d.f.t and stated volume solids 738 sq.ft/US gallon at 0.5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors.
Method of Application	Automatic Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
25°C (77°F)	¹	5 minutes	7 days	Extended ²
40°C (104°F)	¹	4 minutes	7 days	Extended ²

¹ Not applicable; Interplate 937 dries so quickly that this cannot be measured.

² See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 10°C (50°F); Part B 14°C (57°F); Mixed 13°C (55°F)

For products used in North America, see Product Characteristics section.

Product Weight 1.25 kg/l (10.4 lb/gal)

VOC 5.41 lb/gal (649 g/lit)
519 g/kg

EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

Inorganic Zinc Silicate

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Interplate 937, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

If shot is used as the blasting media, it is preferable to add a minimum of 20 percent steel grit to the abrasive mixture in order to provide some angular profile in the substrate.

Remove all dust and abrasive via a suitable method prior to application of Interplate 937.

A surface profile of 30-75 microns (1.2-3.0 mils) is recommended.

APPLICATION

Mixing Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied.

- (1) Agitate Paste (Part A) with power agitator.
- (2) Slowly add Binder (Part B) to Paste while agitating and allow to mix for at least 5 minutes.
- (3) Strain material through a 30-60 mesh screen into an air agitator equipped tank, container or pressure pot.
- (4) Operate air agitator at low speed (~20rpm) to maintain an homogeneous mixture.
- (5) Keep system closed and free from moisture.

Mix Ratio 0.6 part(s) : 1.0 part(s) by volume

Working Pot Life	5°C (41°F)	10°C (50°F)	25°C (77°F)	40°C (104°F)
	24 hours	24 hours	24 hours	6 hours

Airless Spray	Recommended	Tip Range 0.38-0.58 mm (15-23 thou) Total output fluid pressure at spray tip not less than 60 kg/cm ² (853 p.s.i.)
----------------------	-------------	--

Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
---------------------------------	-------------	-----------------------------	---

Air Spray (Conventional)	Recommended	Use suitable proprietary equipment
---------------------------------	-------------	------------------------------------

Brush	Suitable - small areas only
--------------	-----------------------------

Roller	Suitable - small areas only
---------------	-----------------------------

Thinner	International GTA820 or International GTA840
----------------	--

Cleaner	International GTA820 or International GTA840
----------------	--

Work Stoppages Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with International GTA820 or International GTA840. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up Clean all equipment immediately after use with International GTA820 or International GTA840. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Inorganic Zinc Silicate

PRODUCT CHARACTERISTICS

Interplate 937 is designed for use in an automatic plant. It can be applied by manual spray but this is not recommended for complex structures.

Above 30 microns (1.2 mils) DFT the level of weld fume and weld porosity will increase. Drying times will depend on the substrate temperature and on ventilation. Drying will also be retarded if the relative humidity is below 50%.

Shop primers are not recommended for use as touch-up primers after fabrication.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product has the following specification approvals:

- Weld Fumes - Thermal Degradation on Welding (NOHA)
- Weld Fumes - Trace Gas Measurement during Welding (SLV)
- Weld Quality - Approved for Overweldable Shop Primers (GL)
- Weld Quality - Approval of Prefabrication Primers (LR)
- Weld Quality - Shop Primers for Welded Steel Structures (BV)
- Weld Quality - Shop Primers for Corrosion Protection of Steel Plates and Structures (DNV)
- Weld Quality - Russian Maritime Register of Shipping
- Weld Quality - Registro Italiano Navale
- Fire Resistance - Marine Equipment Directive compliant
- MIL SPECS
 - MIL-PRF-23236C, Type V, CL8, GrB & C
 - MIL-PRF-23236C Type 6, CL6 & 8, GrB & C

Product produced and supplied in North America has flash points of: Part A 14°C (60°F), Part B 15°C (61°F) and Mixed 14°C (60°F) due to locally sourced solvents. There is no detrimental effect on product performance.

SYSTEMS COMPATIBILITY

The following primers/topcoats are recommended for Interplate 937:

Intercure 200HS
Intergard 251
Intergard 269
Intergard 345
Intergard 475HS
Interseal 670HS
Interzinc 315
Interzinc 52

For other suitable primers/topcoats, consult International Protective Coatings.

Inorganic Zinc Silicate

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	7.5 litre	20 litre	12.5 litre	15 litre
	5 US gal	1.88 US gal	5 US gal	3.13 US gal	3.5 US gal

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
		20 litre	16.26 kg
5 US gal	33.4 lb	26.1 lb	

STORAGE	Shelf Life:	Part A: 12 months minimum at 25°C (77°F). Part B: 6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Surface Tolerant Epoxy

PRODUCT DESCRIPTION

A low VOC, two component internally flexibilised high build surface tolerant epoxy primer. Pigmented with aluminium and lamellar micaceous iron oxide for improved corrosion resistance.

This formulation represents second generation surface tolerant technology. The product has both application and performance characteristics optimised for use over a wider temperature range.

INTENDED USES

A high performance industrial maintenance coating for use on a wide variety of surfaces including hand or power tool cleaned rusty steel.

Interplus 256 is particularly useful in the maintenance of offshore structures and other aggressive environments such as oil refineries, coastal structures, pulp and paper mills and bridges where dry abrasive blasting is not possible.

Ideal for use in conjunction with wet abrasive blasting or ultra high pressure water blasting, or as a patch primer for rusty surfaces in maintenance situations.

For use on hot surfaces continuously running at up to 150°C (302°F) and for corrosion protection under thermal insulation of carbon steel and stainless steel.

PRACTICAL INFORMATION FOR INTERPLUS 256

Colour	Aluminium
Gloss Level	Eggshell
Volume Solids	80%
Typical Thickness	75-150 microns (3-6 mils) dry equivalent to 94-188 microns (3.8-7.5 mils) wet
Theoretical Coverage	6.40 m ² /litre at 125 microns d.f.t and stated volume solids 257 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	12 hours	22 hours	22 hours	Extended ¹
15°C (59°F)	9 hours	16 hours	16 hours	Extended ¹
25°C (77°F)	5 hours	9 hours	9 hours	Extended ¹
40°C (104°F)	2 hours	6 hours	6 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

For curing at elevated temperatures an alternative curing agent is available. See Product Characteristics for details.

REGULATORY DATA

Flash Point (Typical)	Part A 34°C (93°F); Part B 69°C (156°F); Mixed 39°C (102°F)		
Product Weight	1.39 kg/l (11.6 lb/gal)		
VOC	2.21 lb/gal (265 g/l)	USA - EPA Method 24	
	188 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Surface Tolerant Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

Interplus 256 may be applied to a surface abrasive blast cleaned to a minimum Sa1 (ISO 8501-1:2007) C or D grade rusting, or SSPC SP7.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum of St2 (ISO 8501-1:2007) or SSPC-SP2.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

On hot steel surfaces, cleaning to a minimum St3 (ISO 8501-1:2007) or SSPC SP3 is required. Optimum performance will be achieved from SPPC-SP11 for hand preparation, or blasting to Sa2 (ISO 8501-1:2007) or SSPC-SP6.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2 (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2M (refer to International Hydroblasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interplus 256 is suitable for overlap onto most aged coating systems. Loose or flaking coatings should be removed back to a firm edge. Glossy epoxies and polyurethanes may require abrasion..

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3.0 part(s) : 1.0 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	2 hours	90 minutes	60 minutes	30 minutes
	For curing at elevated temperatures an alternative curing agent is available. See Product Characteristics for details.			
Airless Spray	Suitable	Tip Range 0.45-0.58 mm (18-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Suitable	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Recommended	Typically 75-125 microns (3.0-5.0 mils) can be achieved		
Roller	Recommended	Typically 75-100 microns (3.0-4.0 mils) can be achieved		
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Surface Tolerant Epoxy

PRODUCT CHARACTERISTICS

Interplus 256 is the preferred product for application to hand prepared rusty steel, and is particularly suitable as a patch primer. In these circumstances, application should be performed by brush to ensure good wetting of the hand prepared substrate. For larger areas which have been prepared by power tool cleaning, or brush blast, other products may be suitable. Please consult International Protective Coatings for details.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 200 microns (8 mils) by application of multi-coats over hand prepared steel.

When applying Interplus 256 by brush, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

To ensure good aged overcoating of Interplus 256 by other materials the surface must be clean, dry and free from contamination, particularly if the surface profile is rough due to the presence of micaceous iron oxide.

Application and curing at temperatures below 10°C (50°F) will result in significantly prolonged curing times, and in these circumstances it is recommended that Interplus 356 should be used.

Interplus 256 can be applied to substrates with surface temperatures at time of application up to 100°C (212°F). In these circumstances, rapid application of multiple coats is necessary to achieve the correct film thickness, and suitable personal protection equipment is essential during application due to the rapid release of volatiles from the applied film.

Interplus 256 is suitable for protection of steel operating at continuous dry temperatures of up to 150°C (302°F), with intermittent surges up to 200°C (392°F).

Interplus 256 is not designed for continuous water immersion.

Elevated Temperature Curing

An alternative curing agent is available for applications at temperatures greater than 25°C (77°F).

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
25°C (77°F)	6 hours	11 hours	11 hours	Extended*
40°C (104°F)	3 hours	7 hours	7 hours	Extended*

* See International Protective Coatings Definitions & Abbreviations
Working pot life time at 25°C (77°F) is 1½ hours, and at 40°C (104°F) is 1 hour

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interplus 256 will generally be applied to bare steel but is fully compatible for overlap onto most aged coatings, in addition to touch up repair of the following primers:

Intercure 200	Interzinc 12
Intergard 251	Interzinc 22
Intergard 269	Interzinc 42
InterH2O 280	Interzinc 52
Interseal 670HS	Interzinc 315

Recommended topcoats/intermediates are:

Intercure 420	Interplus 880
Interfine 629HS	Interseal 670HS
Intergard 475HS	Interthane 990
Intergard 740	Interzone 505
Interplus 256	Interzone 954
Interplus 770	

It should be noted that Interplus 256 is not suitable for overcoating with thin films of alkyd, chlorinated rubber, vinyl or acrylic finishes.

For other suitable topcoats/intermediates consult International Protective Coatings

Surface Tolerant Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	3.75 litre	5 litre	1.25 litre	3.5 litre
	4 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	6.2 kg		1.73 kg	
	4 US gal	41.4 lb		9.2 lb	
U.N. Shipping No. UN 1263 (Part A) : UN 1760 (Part B)					
STORAGE	Shelf Life	12 months (Part A) & 24 months (Part B) minimum at 25°C (77° F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Surface Tolerant Epoxy

PRODUCT DESCRIPTION A low VOC, two component, internally flexibilised, high build, low temperature curing (down to -5°C, 23°F), surface tolerant epoxy primer. Metallic pigmented with aluminium and lamellar micaceous iron oxide for increased corrosion resistance.

INTENDED USES A high performance maintenance coating for use on a wide variety of surfaces including hand or power tool cleaned rusty steel.

Specifically designed for use at low temperatures or where rapid overcoating is essential.

Ideal for use in conjunction with wet abrasive blasting and ultra high pressure water blasting.

Interplus 356 is particularly useful in the maintenance of offshore structures and other aggressive environments such as refineries, chemical plants, coastal structures, pulp and paper mills and bridges when dry abrasive blasting is not possible.

PRACTICAL INFORMATION FOR INTERPLUS 356

Colour	Aluminium Grey
Gloss Level	Matt
Volume Solids	70%
Typical Thickness	75-125 microns (3-5 mils) dry equivalent to 107-179 microns (4.3-7.2 mils) wet
Theoretical Coverage	5.60 m ² /litre at 125 microns d.f.t and stated volume solids 225 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray - blasted steel Brush, Roller - hand or power tool prepared steel

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	8 hours	18 hours	10 hours	Extended ¹
15°C (59°F)	2 hours	10 hours	6 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	4 hours	Extended ¹
40°C (104°F)	45 minutes	3 hours	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 44°C (111°F); Part B 27°C (81°F); Mixed 40°C (104°F)		
Product Weight	1.51 kg/l (12.6 lb/gal)		
VOC	2.54 lb/gal (305 g/l) 198 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Surface Tolerant Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

Interplus 356 may be applied to a surface abrasive blast cleaned to a minimum Sa1 (ISO 8501-1:2007) C or D grade rusting, or SSPC SP7.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum of St2 (ISO 8501-1:2007) or SSPC-SP2.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

On steel surfaces operating at in-service temperatures up to 100°C (212°F) cleaning to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3 is required for optimum performance.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting Standards) or Grade SB2½M (refer to International Slurry Blasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interplus 356 is suitable for overlap onto most aged coating systems. Loose or flaking coatings should be removed back to a firm edge. Glossy epoxies and polyurethanes may require abrasion.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	3 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	8 hours	4 hours	2 hours	45 minutes
Airless Spray	Recommended	Tip Range 0.48-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Recommended	Typically 75-100 microns (3.0-4.0 mils) can be achieved		
Roller	Recommended	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	May be necessary at low temperatures, see Product Characteristics. Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Surface Tolerant Epoxy

PRODUCT CHARACTERISTICS

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 200 microns (8 mils) by application of multi-coats over hand prepared steel.

Apply in good climatic conditions. The temperature of the surface to be coated must be at least 3°C (5°F) above the dew point. When applying Interplus 356 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Wet Blasted (Damp Surfaces)

If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of Interplus 356. With freshly blasted surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

To ensure good aged overcoating of Interplus 356 by other materials the surface must be clean, dry and free from contamination, particularly if the surface profile is rough due to the presence of micaceous iron oxide.

Low Temperature Curing

Interplus 356 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

Temperature	Touch Dry	Hard Dry	Minimum overcoating interval with recommended topcoats	
			<i>Minimum</i>	<i>Maximum</i>
-5°C (23°F)	24 hours	60 hours	60 hours	Extended*
0°C (32°F)	16 hours	36 hours	36 hours	Extended*

* See International Protective Coatings Definitions & Abbreviations

Touch dry times shown above are actual drying times due to chemical cure, rather than physical set due to solidification of the coating film at temperatures below 0°C (32°F)

At low temperatures, it may be necessary to thin Interplus 356 to enable airless spray application to be performed. Normally 5% thinning (by volume) with International GTA220 will be satisfactory for this purpose.

Interplus 356 is suitable for protection of steel operating at continuous dry temperatures of up to 150°C (302°F), with intermittent surges up to 200°C (392°F). Interplus 356 is not designed for continuous water immersion.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interplus 356 will generally be applied to bare steel but is fully compatible for overlap onto most aged coatings, in addition to touch up repair of the following primers:

Intercure 200	Interzinc 12
Intergard 251	Interzinc 22
Intergard 269	Interzinc 42
InterH2O 280	Interzinc 52
Interseal 670HS	Interzinc 315

Recommended topcoats/intermediates are:

Intercure 420	Interplus 356
Interfine 629HS	Interplus 770
Interfine 878	Interplus 880
Interfine 979	Interseal 670HS
Interfine 1080	Interthane 990
Intergard 475HS	Interzone 505
Intergard 740	Interzone 954

It should be noted that Interplus 356 is not suitable for overcoating with thin films of alkyd, chlorinated rubber, vinyl or acrylic finishes.

For other suitable topcoats/intermediates consult International Protective Coatings.

Surface Tolerant Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
	5 US gal	3 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	27.7 kg		5.3 kg	
	5 US gal	56.2 lb		8.8 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 08/06/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Surface Tolerant Epoxy

PRODUCT DESCRIPTION A low VOC, two component, high solids, internally flexibilised, surface tolerant epoxy primer/intermediate.

INTENDED USES As a versatile, high performance maintenance coating to upgrade tightly adhering existing coatings to longer life durable systems.

May be applied to steel surfaces where it is not possible to abrasive blast and is suitable for use in conjunction with ultra high pressure hydroblasting.

Suitable for use in a wide range of industrial and coastal environments including pulp and paper plants, refineries, chemical plants, offshore structures, bridges and a range of industrial structures.

PRACTICAL INFORMATION FOR INTERPLUS 770

Colour Wide range via the Chromascan system, Light Grey MIO

Gloss Level Eggshell

Volume Solids 80% ± 3% (depends on colour)

Typical Thickness 75-200 microns (3-8 mils) dry equivalent to 94-250 microns (3.8-10 mils) wet

Theoretical Coverage 6.40 m²/litre at 125 microns d.f.t and stated volume solids
257 sq.ft/US gallon at 5 mils d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	16 hours	72 hours	24 hours	Extended ¹
15°C (59°F)	12 hours	48 hours	20 hours	Extended ¹
25°C (77°F)	8 hours	24 hours	14 hours	Extended ¹
40°C (104°F)	5 hours	8 hours	8 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 31°C (88°F); Part B 101°C (214°F); Mixed 33°C (91°F)

Product Weight 1.44 kg/l (12.0 lb/gal)

VOC 1.97 lb/gal (237 g/lit) EPA Method 24
162 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

Surface Tolerant Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Interplus 770 may be applied to a surface abrasive blast cleaned to a minimum Sa1 (ISO 8501-1:2007) C or D grade rusting, or SSPC SP7.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum of St2 (ISO 8501-1:2007) or SSPC-SP2.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interplus 770 is suitable for overcoating aged coatings which show good adhesion. Loose or flaking coatings should be removed back to a firm edge. Existing epoxy or polyurethane systems which are glossy may require abrasion to ensure good intercoat adhesion.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	6 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	6 hours	5 hours	3 hours	90 minutes
Airless Spray	Recommended	Tip Range 0.48-0.58 mm (19-23 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E		
Brush	Recommended	Typically 75-100 microns (3.0-4.0 mils) can be achieved		
Roller	Recommended	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Surface Tolerant Epoxy

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F). Curing below this temperature will severely retard the cure rate and the coating may stay soft for long periods.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 200 microns (8 mils) by application of multi-coats over hand prepared steel. On hand prepared rusty steel and in severe environments, patch prime with Interplus 256 or Interplus 356.

This product is not available in pale and pastel shades due to a tendency to discolour rapidly. Additionally, in common with all epoxies Interplus 770 will chalk on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance. Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Interplus 770 is formulated for maximum compatibility with aged coatings and as such, it does not exhibit the hardness of conventional epoxies.

Interplus 770 is not designed for continuous water immersion.

When applying Interplus 770 in confined spaces ensure adequate ventilation.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

Interplus 770 is suitable for overcoating all sound aged coatings. However, while Interplus 770 is compatible, it is not generally recommended over zinc silicate (e.g. Interzinc 22) or zinc epoxy (e.g. Interzinc 315).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interplus 770 is suitable for use over the following primers:

- Intercure 200
- Intercure 420
- Intergard 251
- Intergard 269
- Intergard 475HS
- Interplus 256
- Interplus 356
- Interseal 670HS

Recommended topcoats are:

- Intercryl 530
- Interfine 629HS
- Intergard 1735
- Intergard 740
- Interplus 770
- Interplus 880
- Interthane 990

Interplus 770 is not suitable for overcoating with conventional alkyd, chlorinated rubber or acrylic finishes.

For other suitable primers/topcoats, consult International Protective Coatings.

Surface Tolerant Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		28.4 kg		3.4 kg	
U.N. Shipping No. UN 1263 (Part A) : UN 1760 (Part B)					
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Surface Tolerant Polyurethane

PRODUCT DESCRIPTION A low VOC, two component high solids flexible aliphatic surface tolerant polyurethane primer, intermediate or finish capable of producing high build films.

INTENDED USES Primarily as a high performance single coat industrial maintenance coating to upgrade any tightly adhering existing coating to a longer life durable system.

For use in a wide variety of aggressive environments, including those found in chemical plants, refineries, pulp and paper mills and on bridges.

Capable of providing superior gloss and colour retention particularly when compared to epoxy based finishes and will cure at temperatures down to -5°C (23°F).

May be applied to steel surfaces where it is not possible to abrasive blast.

PRACTICAL INFORMATION FOR INTERPLUS 880

Colour	Wide range via the Chromascan system
Gloss Level	Semi Gloss
Volume Solids	80% ± 3% (depends on colour)
Typical Thickness	75-125 microns (3-5 mils) dry equivalent to 94-156 microns (3.8-6.2 mils) wet
Theoretical Coverage	8 m ² /litre at 100 microns d.f.t and stated volume solids 321 sq.ft/US gallon at 4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	3 hours	8 hours	8 hours	Extended ¹
15°C (59°F)	90 minutes	3 hours	3 hours	Extended ¹
25°C (77°F)	60 minutes	2 hours	2 hours	Extended ¹
40°C (104°F)	30 minutes	45 minutes	45 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 32°C (90°F); Part B 51°C (124°F); Mixed 36°C (97°F)	
Product Weight	1.70 kg/l (14.2 lb/gal)	
VOC	1.58 lb/gal (190 g/l) 115 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Surface Tolerant Polyurethane

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interplus 880, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Power Tool Preparation

Power tool clean to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Aged Coatings

Interplus 880 is suitable for overcoating aged coatings which show good adhesion. Loose or flaking coatings should be removed back to a firm edge. Existing epoxy or polyurethane systems which are glossy may require abrasion to ensure good intercoat adhesion.

See Product Characteristics section for further details

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator.		
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	4 part(s) : 1 part(s) by volume		
Working Pot Life	5°C (41°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 40°C (104°F) 1 hour 30 minutes
Airless Spray	Recommended	Tip Range 0.45-0.58 mm (18-23 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA007		
Cleaner	International GTA007		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Surface Tolerant Polyurethane

PRODUCT CHARACTERISTICS

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 200 microns (8 mils) by application of multi-coats over hand prepared steel. On hand prepared rusty steel and in severe environments, patch prime with Interplus 256 or Interplus 356.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Interplus 880 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

For brush and roller application, and in some colours, two coats of Interplus 880 may be required to give uniform coverage.

Do not apply under low temperature conditions where condensation is probable, this will cause gloss loss and may detract from long term performance. Maximum RH recommended for application is 85%.

Over-application may result in foaming and microblistering.

Interplus 880 is formulated for maximum compatibility with aged coatings and as such it does not have the properties normally associated with aliphatic polyurethane finishes. It is more flexible and does not exhibit the hardness of conventional coatings, making the product eminently suitable for maintenance painting. It is not recommended for factory application.

Interplus 880 must be fully cured before exposing to ponding water otherwise adhesion loss can occur.

Interplus 880 is not designed for continuous water immersion.

Ensure adequate ventilation is present during application of Interplus 880 and topcoating systems, this may necessitate the use of forced ventilation when objects are encapsulated such as storage tanks and bridges.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

Curing will occur at low temperatures.

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
-5°C (23°F)	16 hours	24 hours	24 hours	Extended ¹
0°C (32°F)	9 hours	16 hours	16 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

SYSTEMS COMPATIBILITY

Interplus 880 is suitable for overcoating all sound aged coatings but is not generally recommended for direct application to zinc silicate (e.g. Interzinc 22) or zinc epoxy (e.g. Interzinc 52).

The following primers are recommended for Interplus 880:

Intercure 200	Interplus 256
Intercure 420	Interplus 356
Intergard 251	Interplus 770
Intergard 269	Interplus 880
Intergard 475HS	Interseal 670HS

The following topcoats are recommended for Interplus 880:

Interplus 880
Interthane 990

It should be noted that Interplus 880 is not suitable for overcoating with thin films of alkyd, chlorinated rubber, vinyl or acrylic finishes.

For other suitable primers/topcoats consult International Protective Coatings.

Surface Tolerant Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	31.1 kg		5 kg	
	5 US gal	66.1 lb		10.3 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Etch Solution

PRODUCT DESCRIPTION

A phosphoric acid based mordant solution for treating galvanised steel.

INTENDED USES

For the chemical pretreatment of galvanised steel prior to the application of protective coating systems, in order to ensure good adhesion where blasting or abrasion is not possible.

PRACTICAL INFORMATION FOR INTERPRIME 160

Colour	Pale Blue			
Gloss Level	Not applicable			
Volume Solids	Not applicable			
Typical Thickness	Not applicable			
Theoretical Coverage	Not applicable (see Practical Coverage)			
Practical Coverage	Aim to apply at a rate of 20 m ² /litre			
Method of Application	Brush			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)			2 hours	2 days
15°C (59°F)			2 hours	2 days
25°C (77°F)			2 hours	2 days
40°C (104°F)			30 minutes	2 days

*Touch dry and hard dry information is not applicable for Interprime 160

REGULATORY DATA

Flash Point (Typical)	33°C (91°F)		
Product Weight	1.06 kg/l (8.8 lb/gal)		
VOC	2.75 lb/gal (330 g/l)	EPA Method 24	
	329 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

Protective Coatings

Etch Solution

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Galvanised Steel

Galvanised surfaces can be very variable. The preferred method of treatment for subsequent application of protective coatings systems is to sweep blast in order to provide a "physical key" to the substrate following degreasing and cleaning as described above. Alternatively, the substrate should be abraded to remove areas of passivated zinc products.

The surface should be washed to remove any traces of soluble zinc salts and allowed to dry before application of Interprime 160.

APPLICATION		
	Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.
	Mix Ratio	Not applicable
	Airless Spray	Not suitable
	Air Spray (Pressure Pot)	Not suitable
	Brush	Recommended
	Roller	Suitable
	Thinner	Clean Water* *See Product Characteristics
	Cleaner	Clean Water
	Work Stoppages	Thoroughly flush all equipment with clean water. Once units of Interprime 160 have been opened they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly opened units.
	Clean Up	Clean all equipment immediately after use with clean water. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Etch Solution

PRODUCT CHARACTERISTICS

Interprime 160 is only recommended for etching galvanised surfaces. It is not suitable for the pre-treatment of other non-ferrous metals such as aluminium.

This product contains phosphoric acid. Before commencing application reference should be made to the material safety data sheet (MSDS), and the appropriate personal protective equipment should be worn, e.g. gloves, goggles, face-mask etc.

Apply to a suitably prepared, clean galvanised surface and then allow to dry. The mordant solution will gradually react and the blue colour will change with the surface blackening. This should finally achieve a uniform dark grey colour. If this does not occur due to the presence of oils, grease, flux or passivation of the surface then this area will require abrasion and a second coat of Interprime 160.

Over-application will produce a dense black powdery layer which is not suitable for the application of subsequent topcoats. This will require either abrading or washing with fresh water to remove excess acid or powdery deposits, otherwise blistering and/or adhesion loss of topcoats can occur.

Thinning is not normally required. However, if application trials result in a dense black powdery surface, then Interprime 160 should be diluted with clean, potable water and further application trials undertaken.

It should be noted that in all circumstances galvanised steelwork is likely to require a similar coating thickness for adequate protection as might be needed on steel substrates. Application of thin films can result in penetration of this paint film by zinc salts in wet corrosive environments.

This product has the following specification approvals:

- Complies with UK Department of Transport Item No. 155

Interprime 160 was originally formulated to meet the requirements of British Rail's "T-Wash" solution.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interprime 160 treated galvanised steel is suitable for overcoating with most International Protective Coatings systems. However, care should be taken with regard to the dimensions of the galvanised steel. Thin flexible substrates, for example, may not be suitable for overcoating with thick high performance systems as in many cases these have limited flexibility.

Suitable topcoats are:

Intercure 200	Intergard 410
Intercure 420	Intergard 475HS
Intergard 251	Interlac 658
Intergard 269	Interplus 770
Intergard 400	

For other suitable topcoats, consult International Protective Coatings.

Etch Solution

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	10 litre	10 litre	10 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	10 litre		10.45 kg
STORAGE	Shelf Life	24 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Alkyd

PRODUCT DESCRIPTION

A one component, fast drying, high performance, universal alkyd primer.

INTENDED USES

Primarily intended for use as a maintenance primer on hand prepared steel.

Quick drying properties make it equally suitable for use at new construction in the fabrication shop.

Suitable for overcoating hand prepared substrates, and overcoatable with a wide range of topcoats, including epoxies and polyurethanes.

PRACTICAL INFORMATION FOR INTERPRIME 198

Colour	Grey, Red Oxide
Gloss Level	Matt
Volume Solids	41%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 122-183 microns (4.9-7.3 mils) wet
Theoretical Coverage	6.80 m ² /litre at 60 microns d.f.t and stated volume solids 274 sq.ft/US gallon at 2.4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	3 hours	8 hours	6 hours	Extended ¹
15°C (59°F)	90 minutes	3 hours	3 hours	Extended ¹
25°C (77°F)	1 hour	2 hours	2 hours	Extended ¹
40°C (104°F)	30 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations
See Product Characteristics section for further details.

REGULATORY DATA

Flash Point (Typical)	35°C (95°F)	
Product Weight	1.26 kg/l (10.5 lb/gal)	
VOC	4.22 lb/gal (506 g/l) 416 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Alkyd

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Interprime 198 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Maintenance and Site Touch-up

The product is designed for application to surfaces prepared to St2 (ISO 8501-1:2007) or SSPC-SP2. When using power tools care should be taken to avoid surface polishing. The product may also be applied to surfaces which have been brush blasted to Sa1 (ISO 8501-1:2007) or SSPC-SP7. On poor surfaces brush application will assist performance.

Interprime 198 is suitable for overlap onto most aged coating systems. Loose or flaking coatings should be removed back to a firm edge. Glossy epoxies and polyurethanes may require abrasion..

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Conventional)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Brush	Recommended	Typically 40-50 microns (1.6-2.0 mils) can be achieved. Care should be taken to avoid under-application.	
Roller	Recommended	Typically 40-50 microns (1.6-2.0 mils) can be achieved. Care should be taken to avoid under-application.	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA007		
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Alkyd

PRODUCT CHARACTERISTICS

Anti-corrosive performance on hand prepared steel is related directly to both the degree of surface preparation and the dry film thickness of the system applied.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 150 microns (6 mils) by application of multi-coats over hand prepared steel.

Minimum overcoating intervals are shorter when overcoating with Interprime 198. Minimum overcoating time for epoxy and polyurethane topcoats is 16 hours at 25°C (77°F). Further information is available from International Protective Coatings.

When overcoating with epoxies or polyurethanes it will be necessary to adhere to the specified dry film thickness to ensure that adequate drying times are allowed, and that the Interprime 198 is not over-applied.

This product is not intended for use in aggressive, corrosive environments, or on heavily pitted or contaminated steel.

Interprime 198 is not suitable for use as a barrier coat for upgrading old chlorinated rubber and vinyl systems.

When used in a marine environment the schemes and overcoating intervals utilised may differ. Coating systems incorporating Interprime 198 are not suitable for immersion service.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interprime 198 is normally applied to either blasted or hand or power tool cleaned steel. However, it is suitable for application over the following primers and is compatible for touch-up overlap on existing convertible coatings:

Intergard 251
Intergard 269

The following topcoats are recommended for Interprime 198:

Intercryl 530
Interfine 629HS
Intergard 740
Interlac 665
Interplus 770
Interplus 880
Interthane 990

For other suitable primers/topcoats consult International Protective Coatings.

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
	5 US gal	5 US gal	5 US gal
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre		26.8 kg
	5 US gal		60.8 lb
STORAGE	Shelf Life	24 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Alkyd

PRODUCT DESCRIPTION

A single component, fast drying, high build alkyd primer.

INTENDED USES

As a shop applied post-fabrication primer specifically designed for a blast, fabricate and prime steel production route, and where fast drying and rapid handling properties are required.

Suitable for use in mild to moderate corrosive environments such as those typically found in commercial buildings, schools, hospitals, etc.

PRACTICAL INFORMATION FOR INTERPRIME 306

Colour	Limited range
Gloss Level	Matt
Volume Solids	45%
Typical Thickness	50-100 microns (2-4 mils) dry equivalent to 111-222 microns (4.4-8.9 mils) wet
Theoretical Coverage	6 m ² /litre at 75 microns d.f.t and stated volume solids 241 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	45 minutes	4 hours	24 hours	Extended ¹
15°C (59°F)	30 minutes	2.5 hours	10 hours	Extended ¹
25°C (77°F)	20 minutes	1.5 hours	4 hours	Extended ¹
40°C (104°F)	10 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	26°C (79°F)		
Product Weight	1.36 kg/l (11.3 lb/gal)		
VOC	4.05 lb/gal (486 g/l) 354 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Alkyd

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Interprime 306 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Primed Surfaces

Interprime 306 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Interprime 306 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interprime 306.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.33-0.58 mm (13-23 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50 microns (2.0 mils) can be achieved	
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA007		
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Alkyd

PRODUCT CHARACTERISTICS

Interprime 306 is designed to give good edge coverage in a one coat application, however, best results will be achieved by utilising a double spray pass technique on edges rather than attempting to achieve a single pass heavy application.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 75 microns (3 mils). When applying Interprime 306 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. When applying Interprime 306 in confined spaces ensure adequate ventilation.

Interprime 306 is not designed for application to hand prepared steel, except for small touch-up areas.

Interprime 306 is not designed for continuous water immersion. Premature exposure to ponding water will cause a colour change, especially in dark colours.

Over-application of Interprime 306 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

High dry film thickness can also retard through drying and lead to film defects on rapid application of cosmetic finishes.

This product is not intended for use in aggressive, corrosive environments, or on heavily pitted or contaminated steel. Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats. Interprime 306 is suitable for use as a primer for the International range of acrylic intumescent products, in locations classed as no more corrosive than C3 (according to ISO 12944-2).

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6 months exposure provided it is adequately cleaned and any areas of mechanical damage repaired.

Interprime 306 is certified as M1 according to Spanish standards UNE 23.727-90 (Reaction to fire) and UNE 23721-90 (Radiation).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interprime 306 is normally applied to blasted steel, however, the following prefabrication primers can also be used:

Interplate 180
Interplate 398

The following topcoats are recommended for Interprime 306:

Interchar 404	Interlac 645
Interchar 963	Interlac 658
Intercryl 700	Interlac 665

For other suitable primers/topcoats, consult International Protective Coatings.

Alkyd

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	29 kg	
STORAGE	Shelf Life	24 months minimum at 25°C. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Etch Primer

PRODUCT DESCRIPTION

A single component modified polyvinyl butyral, phosphoric acid etch primer free from zinc chromate.

INTENDED USES

As a pretreatment primer designed to promote adhesion and seal the surface of non-ferrous metals such as aluminium, copper, brass, cadmium, zinc and nickel.

Interprime 539 is particularly suitable for priming galvanised steel surfaces.

PRACTICAL INFORMATION FOR INTERPRIME 539

Colour	Yellow, Pink
Gloss Level	Matt
Volume Solids	24%
Typical Thickness	10-20 microns (0.4-0.8 mils) dry equivalent to 42-83 microns (1.7-3.3 mils) wet
Theoretical Coverage	16 m ² /litre at 15 microns d.f.t and stated volume solids 642 sq.ft/US gallon at 0.6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	30 minutes	60 minutes	2 hours	Extended ¹
15°C (59°F)	20 minutes	45 minutes	60 minutes	Extended ¹
25°C (77°F)	15 minutes	30 minutes	60 minutes	Extended ¹
40°C (104°F)	10 minutes	20 minutes	60 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Overcoating is dependent upon environmental conditions. See product characteristics for further advice.

REGULATORY DATA

Flash Point (Typical)	28°C (82°F)	
Product Weight	1.06 kg/l (8.8 lb/gal)	
VOC	6.20 lb/gal (744 g/l) 701 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Etch Primer

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

The preferred method of treating non-ferrous surfaces prior to application of International Protective Coating systems is to brush blast to Sa1 (ISO 8501-1:2007) or SSPC-SP7 or abrade using coarse emery paper following treatment as described above. When blast cleaning is employed, a low air pressure should be used with a fine grade of abrasive (80 mesh) and the nozzle held 1 metre from the surface. Interprime 539 should only be used when this is not possible.

Non-Ferrous Surfaces

Ensure surface is clean, dry and free from metal corrosion products.

When substrate is aluminium or light alloy, the surface should be solvent cleaned according to SSPC-SP1 and then either etched chemically, or physically by light blast cleaning. It is important to follow application of Interprime 539 with a paint system appropriate to the painting of aluminium.

Galvanised Steel

If the surface has not been subjected to hot phosphating before delivery to site, degrease to SSPC-SP1 and remove any white zinc corrosion products by hand abrasion cleaning.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.25-0.38 mm (10-15 thou) Total output fluid pressure at spray tip not less than 112 kg/cm ² (1593 p.s.i.)	
Air Spray (Pressure Pot)	Suitable	Gun	DeVilbiss MBC or JGA
		Air Cap	704 or 765
		Fluid Tip	E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment	
Brush	Suitable	Care should be taken to avoid over-application.	
Roller	Suitable		
Thinner	International GTA220	See Product Characteristics	
Cleaner	International GTA220		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220.		
Clean Up	Clean all equipment immediately after use with International GTA220. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Etch Primer

PRODUCT CHARACTERISTICS

Care must be taken to ensure the surface to be treated is fully degreased, otherwise good adhesion of subsequent topcoats will not be achieved.

When applying Interprime 539 via air spray techniques, up to 10% addition of recommended thinner may be added to aid coating application and penetration.

When applying Interprime 539 via airless spray techniques, up to 5% addition of recommended thinner may be added to aid coating application and penetration.

When applying Interprime 539 in confined spaces ensure adequate ventilation.

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

Dew or rain on this product while uncured may cause surface blush or browning and may impair its cure and adhesion of subsequent coats.

Do not apply when relative humidity exceeds 90% or when condensation is likely to occur.

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

Over-application of topcoating systems containing strong solvent blends can cause softening of Interprime 539. This can cause subsequent loss of adhesion as the topcoat dries/cures, and should be avoided.

Whilst Interprime 539 is capable of achieving extended recoat periods, long term exterior exposure in damp conditions is not recommended as this may lead to poor adhesion of subsequent topcoats. It is recommended that the overcoating interval is kept as short as possible. Consult International Protective Coatings for specific advice.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interprime 539 has been designed as a primer for application to non-ferrous metals and galvanised steel surfaces.

The following topcoats are recommended for Interprime 539:

Intercure 200	Intergard 475HS
Intercure 200HS	Intergard 540
Intercure 420	Interlac 658
Intergard 251	Interplus 770
Intergard 269	Interplus 880
Intergard 400	Interprime 106
Intergard 410	Interseal 670HS

Always ensure sufficient dry film thickness of any subsequent topcoat systems have been applied in order to adequately protect substrate.

Consult International Protective Coatings for further details.

Etch Primer

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	5 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	5 litre		5.8 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Surface Tolerant Epoxy

PRODUCT DESCRIPTION

A low VOC, two component high build, high solids surface tolerant epoxy maintenance coating.

INTENDED USES

For application to a wide variety of substrates including hand prepared rusty steel, abrasive blast cleaned and hydroblasted steel, and a wide range of intact, aged coatings.

Provides excellent anti-corrosive protection in industrial, coastal structures, pulp and paper plants, bridges and offshore environments in both atmospheric exposure and immersion service.

NSF Certification is for tanks greater than 100 gallons (378.5 litres).



Certified to NSF/ANSI 61

PRACTICAL INFORMATION FOR INTERSEAL 670HS

Colour	Available in a wide range of colours including Aluminium
Gloss Level	Semi-gloss (Aluminium is eggshell)
Volume Solids	82% ± 3% (depends on colour)
Typical Thickness	100-250 microns (4-10 mils) dry equivalent to 122-305 microns (4.9-12.2 mils) wet
Theoretical Coverage	6.56 m ² /litre at 125 microns d.f.t and stated volume solids 263 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless spray, Air spray, Brush, Roller

Drying Time ▲

Temperature	Touch Dry	Hard Dry	Overcoating Interval Interseal 670HS with Self			Overcoating Interval with recommended topcoats		
			Min	Max ●	Max †	Min	Max ●	Max †#
10°C (50°F)	8 hours	32 hours	32 hours	6 weeks	Extended*	20 hours	21 days	12 weeks
15°C (59°F)	7 hours	26 hours	26 hours	4 weeks	Extended*	14 hours	14 days	8 weeks
25°C (77°F)	5 hours	18 hours	18 hours	14 days	Extended*	10 hours	7 days	4 weeks
40°C (104°F)	2 hours	6 hours	6 hours	7 days	Extended*	4 hours	3 days	2 weeks

▲ For curing at low temperatures, an alternative curing agent is available. See Product Characteristics for details.

● Refers to situations where immersion is likely to occur

† Refer to atmospheric service only

* See International Protective Coatings Definitions & Abbreviations

Maximum overcoating intervals are shorter when using polysiloxane topcoats.
Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical)	Base (Part A) 36°C (97°F) Curing Agent (Part B) 56°C (133°F)	Mixed 33°C (91°F)
Product Weight	1.6 kg/l (13.3 lb/gal)	
VOC	114 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)
	2.00 lb/gal (240 g/l)	EPA Method 24

Surface Tolerant Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

For immersion service, Interseal 670HS must be applied to surfaces blast cleaned to Sa2.5 (ISO 8501-1:2007) or SSPC-SP10. However, for atmospheric exposure best performance will be achieved when Interseal 670HS is applied to surfaces prepared to a minimum of Sa2.5 (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process, should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum St2 (ISO 8501-1:2007) or SSPC-SP2.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Ultra High Pressure Hydroblasting/Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2.5 (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2.5M (refer to International Hydroblasting Standards) or Grade SB2.5M (refer to International Slurry blasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interseal 670HS is suitable for overcoating a limited range of intact, tightly adherent aged coatings. Loose or flaking coatings should be removed back to a firm edge. Glossy finishes may require light abrasion to provide a physical 'key'. See Product Characteristics section for further information.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	5.67 parts : 1.00 part by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	5 hours	3 hours	2 hours	1 hour
Airless Spray	Recommended	Tip range 0.45-0.58 mm (18-23 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2,500 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Recommended	Typically 100-125 microns (4-5 mils) can be achieved		
Roller	Recommended	Typically 75-100 microns (3-4 mils) can be achieved		
Thinner	International GTA220 (or GTA415)	May be necessary at low temperatures. Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA822 (or GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Surface Tolerant Epoxy

PRODUCT CHARACTERISTICS

For water immersion service, surface preparation to a minimum of Sa2.5 (ISO 8501-1:2007) or SSPC-SP10 followed by application of multi-coats of Interseal 670HS to a total minimum dry film thickness of 250 microns (10 mils) is required.

Colours derived from chromascan bases as the first coat of a specification for immersion service is not recommended.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of Interseal 670HS. With freshly blasted surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

Interseal 670HS may be applied to suitably sealed or primed concrete; contact International Protective Coatings for further advice on specification and primers.

Interseal 670HS is suitable for overcoating intact, aged alkyd, epoxy and polyurethane systems. However, this product is not recommended where thermoplastic coatings such as chlorinated rubbers and vinyls have previously been used. Please consult International Protective Coatings for alternative recommendations.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Level of sheen and surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

In common with all epoxies Interseal 670HS will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

Interseal 670HS can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interseal 670HS is certified to NSF/ANSI Standard 61 (selected colours only). Consult International Protective Coatings for further details. Certification is for tanks greater than 100 gallons (378.5 litres), for pipes which are 6 inches (15 cm) in diameter or greater and for valves which are 2 inches (5 cm) in diameter or greater.

Low Temperature Curing

A winter grade curing agent is also available to enable more rapid cure at temperatures less than 10°C (50°F), however this curing agent will give an initial shade variation and more rapid discoloration on weathering.

Interseal 670HS is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

Temperature	Touch Dry	Hard Dry	Overcoating Interval Interseal 670HS with Self			Overcoating Interval with recommended topcoats		
			Min	Max ●	Max †	Min	Max ●	Max †
-5°C (23°F)	24 hours	72 hours	72 hours	12 weeks	Extended*	72 hours	84 hours	12 weeks
0°C (32°F)	16 hours	56 hours	56 hours	10 weeks	Extended*	42 hours	54 hours	10 weeks
5°C (41°F)	9 hours	36 hours	36 hours	8 weeks	Extended*	36 hours	48 hours	8 weeks
10°C (50°F)	5 hours	24 hours	24 hours	6 weeks	Extended*	16 hours	24 hours	6 weeks

● Refers to situations where immersion is likely to occur

† Refer to atmospheric service only

* See International Protective Coatings Definitions & Abbreviations

Touch dry times shown above are actual drying times due to chemical cure, rather than physical set due to solidification of the coating film at temperatures below 0°C (32°F).

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24

SYSTEMS COMPATIBILITY

Interseal 670HS will normally be applied to correctly prepared steel substrates. However, it can be used over suitably primed surfaces. Suitable primers are:

- Intercure 200
- Interzinc 315
- Interplus 356
- Interplus 256
- Intergard 269

Where a cosmetically acceptable topcoat is required the following products are recommended:

- Intercryl 530
- Interfine 878
- Intergard 740
- Interthane 990
- Interfine 629HS
- Interfine 979
- Interthane 870

Other suitable primers/topcoats are available. Consult International Protective Coatings.

Surface Tolerant Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		Part A		Part B	
		Vol	Pack	Vol	Pack	
	20 litre	17 litre	20 litre	3 litre	3.7 litre	
	5 US gal	4.25 US Gal	5 US Gal	0.75 US Gal	1 US gal	

For availability of other pack sizes, contact International Protective Coatings

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
	20 litre	30.8 kg	3.5 kg
5 US gal	64.9 lb	6.8 lb	

STORAGE	Shelf Life
	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from frost.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 18/6/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic

PRODUCT DESCRIPTION

A single component, fast drying, modified acrylic finish.

INTENDED USES

As a sealer coat for single pack acrylic intumescent coating systems.

PRACTICAL INFORMATION FOR INTERSHEEN 579

Colour	Wide range via the Chromascan system
Gloss Level	Semi Gloss
Volume Solids	35% ± 3%
Typical Thickness	40-50 microns (1.6-2 mils) dry equivalent to 114-143 microns (4.6-5.7 mils) wet
Theoretical Coverage	8.80 m ² /litre at 40 microns d.f.t and stated volume solids 351 sq.ft/US gallon at 1.6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Roller, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
-5°C (23°F)	2 hours	36 hours	24 hours	Extended ¹
5°C (41°F)	1 hour	24 hours	8 hours	Extended ¹
25°C (77°F)	30 minutes	8 hours	4 hours	Extended ¹
35°C (95°F)	15 minutes	8 hours	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	23°C (73°F)	
Product Weight	1.105 kg/l (9.2 lb/gal)	
VOC	4.71 lb/gal (565 g/lit) 518 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Acrylic

SURFACE PREPARATION

Intumescent Coatings

Intumescent coatings should be checked for required dry film thickness prior to application of Intersheen 579 and should be clean, dry and free of loose material or other surface contamination. Please see the Interchar Working Procedures for further information on optimum overcoating intervals.

Primed Steelwork

Intersheen 579 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intersheen 579 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intersheen 579

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)
Air Spray (Conventional)	Not recommended	
Brush	Recommended - Small areas only	Multiple coats may be required to achieve specified film thickness.
Roller	Recommended - Small areas only	Multiple coats may be required to achieve specified film thickness.
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA007	
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Acrylic

PRODUCT CHARACTERISTICS

Surface temperature must always be a minimum of 3°C (5°F) above dew point. Ensure adequate ventilation is provided throughout application and curing.

Intersheen 579 may also be used as a cosmetic finish over single pack primers and intermediates

Intersheen 579 should be protected from pooling or running water, condensation/high humidity and chemical attack at all times. When Intersheen 579 is being used as a sealer coat for intumescent coatings, the complete system is not suitable for exposure in environments more aggressive than C3 (as defined in ISO 12944 Part 2). See the Acrylic Intumescent Application Guidelines for further information.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible. Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Intersheen 579 is certified as M1 according to Spanish standards UNE 23.727-90 (Reaction to fire) and UNE 23721-90 (Radiation).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Intersheen 579:

Interchar 404	Interchar 963
Interchar 973	Interprime 198

For other suitable primers, consult International Protective Coatings.

Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	20 litre	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	23.88 kg	
STORAGE	Shelf Life	24 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy

PRODUCT DESCRIPTION

A two component, abrasion resistant pure epoxy coating pigmented with aluminium to give excellent long term anti-corrosive protection.

Formulated on proprietary polymer technology, enabling rapid cure and overcoating even under low temperature conditions.

INTENDED USES

As an abrasion resistant coating that can reduce corrosion due to mechanical damage and provide barrier protection in aggressive environments.

Ideally suited for use as a universal primer on offshore platforms and floating production and storage facilities on areas such as underwater hull, topsides, external superstructure, decks, cargo tanks and ballast tanks.

Can be applied directly to mechanically prepared shop primer or suitably prepared bare steel.

PRACTICAL INFORMATION FOR INTERSHIELD 300

Colour	Bronze, Aluminium			
Gloss Level	Not applicable			
Volume Solids	60% ± 2%			
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 167-333 microns (6.7-13.3 mils) wet			
Theoretical Coverage	4 m ² /litre at 150 microns d.f.t and stated volume solids 160 sq.ft/US gallon at 6 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
-5°C (23°F)	7 hours	10 hours	14 hours	14 days ¹
5°C (41°F)	5 hours	8 hours	9 hours	14 days ¹
15°C (59°F)	4 hours	7 hours	8 hours	14 days ¹
25°C (77°F)	3 hours	6 hours	7 hours	14 days ¹
40°C (104°F)	1.5 hours	2.5 hours	3 hours	10 days ¹

¹ Values given refer to situations where immersion is likely to occur; for atmospheric service, see Product Characteristics section.

REGULATORY DATA

Flash Point (Typical)	Part A 28°C (82°F); Part B 26°C (79°F); Mixed 28°C (82°F)	
Product Weight	1.23 kg/l (10.3 lb/gal)	
VOC	3.22 lb/gal (386 g/l) 318 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For immersion service, Intershield 300 must be applied to surfaces blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. However, for atmospheric exposure Intershield 300 may be applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2 (ISO 8501-1:2007) or SSPC SP6 which have flash rusted to no worse than Grade HB2M (refer to International Hydroblasting Standards) or Grade SB2M (refer to International Slurry Blasting Standards).

Shop Primed Steel

Areas of breakdown, damage, weld seams etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 or power tool cleaned to Pt3 (JSRA SPSS:1984) or SSPC-SP11).

Intact, approved shop primers must be clean, dry and free from soluble salts and any other surface contaminants. Unapproved shop primers will require complete removal by blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. In some cases sweep blasting to a defined International Paint standard (eg AS2 or AS3) may be acceptable.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.				
	(1) Agitate Base (Part A) with a power agitator.				
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.				
Mix Ratio	2.5 part(s) : 1.0 part(s) by volume				
Working Pot Life	-5°C (23°F) 6 hours	5°C (41°F) 6 hours	15°C (59°F) 4 hours	25°C (77°F) 2.5 hours	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.66-0.79 mm (26-31 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)			
Air Spray (Pressure Pot)	Not recommended				
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved			
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved			
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation			
Cleaner	International GTA822 (or International GTA220)				
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA220. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.				
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.				
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.				

Epoxy

PRODUCT CHARACTERISTICS

Apply by airless spray only. Application by other methods, e.g. brush, roller, may require more than one coat and should only be used for small areas or touch-up work.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Intershield 300 in confined spaces ensure adequate ventilation.

In common with all epoxies Intershield 300 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Over-application of Intershield 300 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Intershield 300 should be high pressure water washed and/or solvent washed prior to overcoating, where necessary, to ensure removal of any surface contamination that has accumulated.

Intershield 300 may be applied at substrate temperatures between -5°C and -20°C in certain locations worldwide. However, consideration should be given when overcoating at low temperatures as the remainder of the system may require higher temperatures to achieve full cure.

Overcoating Intervals with Recommended Topcoats (Atmospheric Service Conditions)

Recommended Topcoat	-5°C (23°F)		5°C (41°F)		25°C (77°F)		40°C (104°F)	
	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>	<i>Min</i>	<i>Max</i>
Interfine 979	NA	NA	8 hours	7 days	6 hours	7 days	2 hours	6 days
Intergard 263	14 hours	14 days	9 hours	14 days	7 hours	14 days	3 hours	14 days
Intergard 269	14 hours	6 months	9 hours	6 months	7 hours	6 months	3 hours	10 weeks
Intergard 740	14 hours	14 days	9 hours	14 days	7 hours	14 days	3 hours	14 days
Intershield 300	14 hours	6 months	9 hours	6 months	7 hours	6 months	4 hours	3 months
Intersleek 737	NA	NA	7 hours	24 hours	5 hours	9 hours	2.5 hours	5.5 hours
Interthane 990	14 hours	5 days	9 hours	5 days	7 hours	3 days	4 hours	36 hours

When Intershield 300 is to be overcoated with Intersleek 737, the following maximum pot lives must be observed:

0°C (32°F)	15°C (59°F)	25°C (77°F)	35°C (95°F)
160 minutes	105 minutes	75 minutes	45 minutes

This product has the following specification approvals:

- B1 Classification of Ballast Tank Coatings (DNV/Marintek tested)
- Ballast Tank type approval (Germanischer Lloyd)
- Recognised Corrosion Control Coating (Lloyd's Register)
- Norsok M-501 System 3B

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intershield 300 will normally be applied to correctly prepared steel substrates. However, it can be used over suitably primed surfaces. Suitable primers are:

Intergard 269	Interplate 977
Interplate 855	Interplate 997
Interplate 937	Intershield 300

Suitable topcoats are:

Interfine 979	Intershield 300
Intergard 263	Intersleek 717
Intergard 269	Intersleek 737
Intergard 740	Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	17.5 litre	12.5 litre	20 litre	5 litre	5 litre
	4.6 US gal	3.3 US gal	5.3 US gal	1.3 US gal	1.3 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		18 kg		5.2 kg	
	17.5 litre	18 kg		5.2 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Silicone Elastomer

PRODUCT DESCRIPTION A three pack, silicone elastomer tie coat with no added biocides.

INTENDED USES As a tie coat which forms an integral part of the Intersleek foul release system by promoting adhesion between the approved epoxy anti corrosive system and the Intersleek finish coat.

PRACTICAL INFORMATION FOR INTERSLEEK 737

Colour	Pink, Light Grey
Gloss Level	Not Applicable
Volume Solids	57% ± 2%
Typical Thickness	100 microns (4 mils) dry equivalent to 175 microns (7 mils) wet
Theoretical Coverage	5.70 m ² /litre at 100 microns d.f.t and stated volume solids 229 sq.ft/US gallon at 4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	5 hours	10 hours	22 hours	7 days
15°C (59°F)	3 hours	7 hours	18 hours	7 days
25°C (77°F)	2 hours	5 hours	12 hours	7 days
40°C (104°F)	45 minutes	2 hours	5 hours	7 days

REGULATORY DATA

Flash Point (Typical)	Part A 36°C (97°F); Part B 38°C (100°F); Part C 25°C (77°F); Mixed 28°C (82°F)		
Product Weight	1.20 kg/l (10.0 lb/gal)		
VOC	3.14 lb/gal (377 g/lt) 280 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Silicone Elastomer

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Steel Substrates

Intersleek 737 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intersleek 737 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed with the full anti-corrosive system prior to the application of Intersleek 737.

APPLICATION

Mixing	Material is supplied in three containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ol style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Base (Part A), Curing Agent (Part B) and Part C and mix thoroughly with a power agitator. 			
Mix Ratio	4 part(s) : 5 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 140 minutes	15°C (59°F) 90 minutes	25°C (77°F) 60 minutes	40°C (104°F) 20 minutes
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Brush	Suitable - small areas only			
Roller	Suitable - small areas only			
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Silicone Elastomer

PRODUCT CHARACTERISTICS

This product contains silicones which can cause problems with the surface finish and subsequent adhesion of other coatings if contaminated with Intersleek 737. Good housekeeping practices are essential and care should be taken to avoid overspray onto conventionally coated areas.

All equipment must be thoroughly cleaned prior to use, and before re-use with other materials, to prevent contamination.

Any liquids used to clean up Intersleek must not be allowed to contaminate other liquid paints or coated surfaces.

Intersleek 737 has a short pot life. It is important to minimise all delays and mix only sufficient material at one time to maintain the spray operation, in order to prevent the possibility of the material curing in the spray apparatus.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intersleek 737 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Exposure to unacceptably low temperatures and/or high humidities during or immediately after application may result in incomplete cure and surface contamination that could jeopardise subsequent intercoat adhesion.

Over-application of Intersleek 737 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intersleek 737 forms part of the Intersleek foul release system. As such, Intersleek 737 must always be applied over an approved epoxy anti-corrosive scheme.

Approved anti corrosive schemes are:

Intershield 300

Intersleek 737 should only be topcoated with itself, or Intersleek 970

Silicone Elastomer

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B		Part C	
		Vol	Pack	Vol	Pack	Vol	Pack
	10 litre	4 litre	10 litre	5 litre	5 litre	1 litre	1 litre
For availability of other pack sizes, contact International Protective Coatings.							
SHIPPING WEIGHT (TYPICAL)	Unit Size						
	10 litre	14.2 kg					
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.					

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Fluoropolymer Foul Release

PRODUCT DESCRIPTION

A three pack patented fluoropolymer foul release coating with no added biocides.

INTENDED USES

As the finish coat for the Intersleek 900 foul release system.

Ideal for use in the Offshore Oil & Gas, Power Plant and Water Treatment markets where the build-up of biofouling is an issue. Intersleek 970's surface effect is particularly suitable for inhibiting the build-up of biofouling on static structures such as power station water inlets and FPSO seachests, considerably reducing biofouling removal costs.

Being biocide-free, Intersleek 970 can be used in areas where conventional biocidal anti-fouling are not permitted.

Intersleek 970 can be used in both maintenance and repair and new construction projects.

PRACTICAL INFORMATION FOR INTERSLEEK 970

Colour	White, Blue, Red, Grey, Black
Gloss Level	Gloss
Volume Solids	74% ± 2%
Typical Thickness	150 microns (6 mils) dry equivalent to 203 microns (8.1 mils) wet
Theoretical Coverage	4.90 m ² /litre at 150 microns d.f.t and stated volume solids 198 sq.ft/US gallon at 6 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Brush, Roller
Drying Time	

Overcoating interval with self

Temperature	Touch Dry	Hard Dry	Minimum	Maximum
5°C (41°F)	6 hours	13 hours	14 hours	Extended ¹
15°C (59°F)	4 hours	9 hours	10 hours	Extended ¹
25°C (77°F)	3 hours	6 hours	6 hours	Extended ¹
40°C (104°F)	1.5 hours	5 hours	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 38°C (100°F); Part B 24°C (75°F); Part C 32°C (90°F); Mixed 32°C (90°F)		
Product Weight	1.06 kg/l (8.8 lb/gal)		
VOC	2.06 lb/gal (248 g/l) 241 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Fluoropolymer Foul Release

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Steel Substrates

Intersleek 970 should always be applied over a recommended anti-corrosive coating scheme which has been overcoated with Intersleek 737 tie coat (Intersleek 731 tie coat in North America). The primer surface should be dry and free from all contamination, and Intersleek 970 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed with the full anti-corrosive coating scheme and tie coat prior to the application of Intersleek 970.

APPLICATION

Mixing	Material is supplied in three containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ul style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Agitate Curing Agent (Part B) with a power agitator. (3) Combine entire contents of Base (Part A), Curing Agent (Part B) and Part C and mix thoroughly with a power agitator. 			
Mix Ratio	9 part(s) : 2 part(s) : 1 part(s) by volume			
Working Pot Life	0°C (32°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
		1.5 hours	60 minutes	20 minutes
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Conventional)	Not recommended			
Brush	Suitable - Small touch-up areas only			
Roller	Suitable - Small touch-up areas only			
Thinner	Not normally required. If necessary, use International GTA007. Do not thin more than allowed by local environmental legislation			
Cleaner	International GTA007 or International GTA822			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Fluoropolymer Foul Release

PRODUCT CHARACTERISTICS

This product is fluoropolymer based and as such can cause problems with the surface finish and subsequent adhesion of other coatings if contaminated with Intersleek 970. Good housekeeping practices are essential and care should be taken to avoid overspray onto conventionally coated areas. **All** equipment must be thoroughly cleaned prior to use, and before re-use with other materials, to prevent contamination.

Any liquids used to clean up Intersleek must not be allowed to contaminate other liquid paints or coated surfaces.

Intersleek 970 has a short pot life. It is important to minimise all delays and mix only sufficient material at one time to maintain the spray operation, in order to prevent the possibility of the material curing in the spray apparatus.

A minimum relative humidity of 30% is required to ensure satisfactory curing. Longer cure times will result if the relative humidity falls below 30%.

Minimum acceptable substrate temperature at the time of application is 0°C (32°F).

The temperature of the surface to be coated must be at least 3°C (5°F) above the dew point. For optimum application properties bring the material to 21-27°C (70-80°F), unless specifically instructed otherwise, prior to mixing and application.

When applying Intersleek 970 by brush or roller, it may be necessary to apply multiple coats to achieve the required film build.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved.

Over-application of Intersleek 970 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

In common with all elastomers the surface finish produced provides a relatively soft, rubbery finish which is resistant to direct impact but can be damaged by mechanical means such as gouging, scratching and scraping. When handling steelwork coated with Intersleek 970 it is recommended that chains are not used and lifting is conducted by means of nylon slings.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intersleek 970 forms part of the Intersleek 900 foul release system. As such, Intersleek 970 must always be applied over an approved epoxy anti-corrosive scheme which has been overcoated with Intersleek 737 tie coat (Intersleek 731 tie coat in North America).

Approved anti corrosive schemes are:

Intershield 300
Intergard 264 (in North America).

Intersleek 970 should only be topcoated with itself, and should never be overcoated with another product.

Fluoropolymer Foul Release

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B		Part C	
		Vol	Pack	Vol	Pack	Vol	Pack
	10 litre	8 litre	10 litre	1.5 litre	2.5 litre	0.5 litre	1 litre
	5 US gal	4 US gal	5 US gal	0.75 US gal	1 US gal	0.25 US gal	0.25 US gal

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)	Unit Size	
	10 litre	12.3 kg
	5 US gal	112.8 lb

STORAGE	Shelf Life	
		12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 22/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Polyurethane

PRODUCT DESCRIPTION A two component, high build, acrylic polyurethane finish giving excellent durability and long term recoatability.

INTENDED USES Suitable for use in both new construction and as an industrial maintenance finish which can be used in a wide variety of environments including offshore structures, petrochemical facilities, bridges, pulp and paper mills, and in the power industry.

Particularly designed for use in areas where a high gloss is either not desired or where a semi-gloss is the preferred option.

Provides a versatile option where overcoating of intermediates in one coat is not possible using conventional high gloss polyurethane finishes.

PRACTICAL INFORMATION FOR INTERTHANE 870

Colour	Wide range via the Chromascan system
Gloss Level	Semi Gloss
Volume Solids	56% ± 3% (depends on colour)
Typical Thickness	75-125 microns (3-5 mils) dry equivalent to 134-223 microns (5.4-8.9 mils) wet
Theoretical Coverage	4.50 m ² /litre at 125 microns d.f.t and stated volume solids 180 sq.ft/US gallon at 5 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	90 minutes	30 hours	30 hours	Extended ¹
15°C (59°F)	75 minutes	16 hours	16 hours	Extended ¹
25°C (77°F)	60 minutes	5 hours	5 hours	Extended ¹
40°C (104°F)	45 minutes	2.5 hours	2.5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical) Part A 35°C (95°F); Part B 50°C (122°F); Mixed 35°C (95°F)

Product Weight 1.38 kg/l (11.5 lb/gal)

VOC 3.14 lb/gal (377 g/lit) EPA Method 24
280 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interthane 870 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interthane 870 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interthane 870.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	7 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 7 hours	15°C (59°F) 3.5 hours	25°C (77°F) 2 hours	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.43-0.58 mm (17-23 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Air Spray (Conventional)	Suitable	Use suitable proprietary equipment		
Brush	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Suitable	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA713 or International GTA733 (or International GTA056)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA713, International GTA733 or International GTA056			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Polyurethane

PRODUCT CHARACTERISTICS

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

If application in one coat using brush and roller is desired then the undercoat shade should be chosen to match the final coat shade. Dark coloured and MIO undercoats will typically require 2 coats of Interthane 870.

When applying Interthane 870 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Applicators should be aware that the ability to apply Interthane 870 in one coat will be affected by the temperature of the substrate. At higher steel temperatures, lower film builds and thinner coats are likely to be achieved.

This product must only be thinned using the recommended International thinners. The use of alternative thinners, particularly those containing alcohols, can severely inhibit the curing mechanism of the coating.

Do not apply at steel temperatures below 5°C (41°F).

When applying Interthane 870 in confined spaces ensure adequate ventilation.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interthane 870.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

Absolute measured adhesion of topcoats to aged Interthane 870 is less than that to fresh material, however, it is adequate for the specified end use.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following primers/intermediates are recommended for Interthane 870:

Intercure 200	Interplus 356
Intercure 200HS	Interseal 670HS
Intercure 420	Interzinc 52
Intercure 420HS	Interzinc 52HS
Intergard 251	Interzinc 315
Intergard 475HS	Interzone 505
Interplus 256	Interzone 954

Interthane 870 is designed only to be topcoated with itself.

For other suitable primers/intermediates, consult International Protective Coatings.

Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.5 litre	20 litre	2.5 litre	3.7 litre
	5 US gal	4.38 US gal	5 US gal	0.63 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	27 kg		3.1 kg	
	5 US gal	55.1 lb		6.4 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Polyurethane

PRODUCT DESCRIPTION

A two component acrylic polyurethane finish giving excellent durability and long term recoatability.

INTENDED USES

Suitable for use in both new construction and as a maintenance finish which can be used in a wide variety of environments including offshore structures, chemical and petrochemical plants, bridges, pulp and paper mills, and in the power industry.

PRACTICAL INFORMATION FOR INTERTHANE 990

Colour	Wide range via the Chromascan system
Gloss Level	High Gloss
Volume Solids	57% ± 3% (depends on colour)
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 88-132 microns (3.5-5.3 mils) wet
Theoretical Coverage	11.40 m ² /litre at 50 microns d.f.t and stated volume solids 457 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
-5°C (23°F)	8 hours	60 hours	60 hours	Extended ¹
5°C (41°F)	5 hours	24 hours	24 hours	Extended ¹
15°C (59°F)	150 minutes	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 34°C (93°F); Part B 49°C (120°F); Mixed 35°C (95°F)		
Product Weight	1.21 kg/l (10.1 lb/gal)		
VOC	3.50 lb/gal (420 g/l) 341 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Interthane 990 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Interthane 990 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interthane 990.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified. (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.	
Mix Ratio	6 part(s): 1part(s) by volume	
Working Pot Life	-5°C (23°F) 26 hours	5°C (41°F) 12 hours
	15°C (59°F) 4 hours	25°C (77°F) 2 hours
		40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment
Brush	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved
Roller	Suitable	Typically 40-50 microns (1.6-2.0 mils) can be achieved
Thinner	International GTA713 (or International GTA733 or GTA056)	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA713 (or International GTA733 or GTA056)	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Polyurethane

PRODUCT CHARACTERISTICS

Interthane 990 is available in a range of metallic finishes - please consult the separate Interthane 990 Metallic Working Procedures document for further information.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Best results in terms of gloss and appearance will always be obtained by conventional air spray application.

For brush and roller application, and in some colours, two coats of Interthane 990 may be required to give uniform coverage, especially when applying Interthane 990 over dark undercoats, and when using certain lead free bright colours such as yellows and oranges. Best practice is to use a colour compatible intermediate or anticorrosive coating under the Interthane 990.

When overcoating after weathering or ageing, ensure the coating is fully cleaned to remove all surface contamination such as oil, grease, salt crystals and traffic fumes, before application of a further coat of Interthane 990.

Absolute measured adhesion of topcoats to aged Interthane 990 is less than that to fresh material, however, it is adequate for the specified end use.

This product must only be thinned using the recommended International thinners. The use of alternative thinners, particularly those containing alcohols, can severely affect the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interthane 990 in confined spaces ensure adequate ventilation.

Interthane 990 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate. Condensation occurring during or immediately after application may result in a matt finish and an inferior film. Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

This product is not recommended for use in immersion conditions. When severe chemical or solvent splashing is likely to occur contact International Protective Coatings for information regarding suitability.

A modified version of Interthane 990 is available for use within the Korean marketplace in order to provide improved workability.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

The following primers/intermediates are recommended for Interthane 990:

Intercure 200	Interseal 670HS
Intercure 200HS	Interzinc 315
Intercure 420	Interzinc 52
Intergard 251	Interzinc 52HS
Intergard 269	Interzone 505
Intergard 345	Interzone 954
Intergard 475HS	Interzone 1000

Interthane 990 is designed only to be topcoated with itself.

For other suitable primers/intermediates consult International Protective Coatings.

Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interthane 990 Metallic Finish Working Procedures

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	3.7 litre
	5 US gal	4.29 US gal	5 US gal	0.71 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	23.1 kg		3.5 kg	
	5 US gal	47.6 lb		7.1 lb	
STORAGE	Shelf Life	24 months (Part A) & 12 months (Part B) minimum at 25°C (77°F) Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 27/04/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polyurethane

PRODUCT DESCRIPTION

A two component, gloss, low VOC, high solids, fast curing, acrylic polyurethane primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a durable, decorative finish.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interthane 3230G is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interthane 3230G are:-

- Good adhesion properties over correctly prepared steel, galvanised steel and stainless steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Good gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERTHANE 3230G

Colour	Colours available on request			
Gloss Level	70-80 gloss units at 60° angle (See Product Characteristics)			
Volume Solids	70% ± 2%			
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 114-214 microns (4.6-8.6 mils) wet			
Theoretical Coverage	8.80 m ² /litre at 80 microns d.f.t and stated volume solids 351 sq.ft/US gallon at 3.2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	2.5 hours	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹
60°C (140°F)	50 minutes	90 minutes	90 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 35°C (95°F); Part B 50°C (122°F); Mixed 35°C (95°F)	
Product Weight	1.49 kg/l (12.4 lb/gal)	
VOC	214 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Acrylic Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interthane 3230G the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interthane 3230G must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interthane 3230G.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	6 part(s) : 1 part(s) by volume		
Working Pot Life	15°C (59°F) 5 hours	25°C (77°F) 2.5 hours	40°C (104°F) 1.5 hours
Plural Component	Recommended		
Airless Spray	Recommended		
Airless Spray	Recommended Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA713		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Acrylic Polyurethane

PRODUCT CHARACTERISTICS

Interthane 3230G is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Polyurethane based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Gloss level achieved may differ if there is excessive variation in cure temperature and application thickness.

Excessive film thickness and/or over-application of Interthane 3230G will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interthane 3230G to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interthane 3230G.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interthane 3230G can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Intergard 3210

Interthane 3230G may be overcoated with itself or the following topcoats;

Interthane 3230G
Interthane 3230HG
Interthane 3230M
Interthane 3230SG

Acrylic Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		28.4 kg		3.5 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polyurethane

PRODUCT DESCRIPTION

A two component, high gloss, low VOC, high solids, fast curing, acrylic polyurethane primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a durable, decorative finish.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interthane 3230HG is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interthane 3230HG are:-

- Good adhesion properties over correctly prepared steel, galvanised steel and stainless steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Good gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERTHANE 3230HG

Colour	Colours available on request
Gloss Level	85+ gloss units at 60° angle (See Product Characteristics)
Volume Solids	62% ± 2%
Typical Thickness	60-100 microns (2.4-4 mils) dry equivalent to 97-161 microns (3.9-6.4 mils) wet
Theoretical Coverage	10.30 m ² /litre at 60 microns d.f.t and stated volume solids 414 sq.ft/US gallon at 2.4 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
15°C (59°F)	2.5 hours	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹
60°C (140°F)	50 minutes	90 minutes	90 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 34°C (93°F); Part B 50°C (122°F); Mixed 35°C (95°F)
Product Weight	1.24 kg/l (10.3 lb/gal)
VOC	333 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Acrylic Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interthane 3230HG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interthane 3230HG must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interthane 3230HG.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1)	Agitate Base (Part A) with a power agitator.	
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.	
Mix Ratio	6 part(s) : 1 part(s) by volume		
Working Pot Life	15°C (59°F) 7 hours	25°C (77°F) 4 hours	40°C (104°F) 2 hours
Plural Component	Recommended		
Airless Spray	Recommended		
Airless Spray	Recommended Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA713		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Acrylic Polyurethane

PRODUCT CHARACTERISTICS

Interthane 3230HG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Polyurethane based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Gloss level achieved may differ if there is excessive variation in cure temperature and application thickness.

Excessive film thickness and/or over-application of Interthane 3230HG will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interthane 3230HG to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interthane 3230HG.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interthane 3230HG can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Intergard 3210

Interthane 3230HG may be overcoated with itself or the following topcoats;

Interthane 3230G
Interthane 3230HG
Interthane 3230M
Interthane 3230SG

Acrylic Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		23.5 kg		3.5 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polyurethane

PRODUCT DESCRIPTION

A two component, matt, low VOC, high solids, fast curing, acrylic polyurethane primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a durable, decorative finish.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interthane 3230M is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interthane 3230M are:-

- Good adhesion properties over correctly prepared steel, galvanised steel and stainless steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Good gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERTHANE 3230M

Colour	Colours available on request			
Gloss Level	20-30 gloss units at 60° angle (See Product Characteristics)			
Volume Solids	70% ± 2%			
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 114-214 microns (4.6-8.6 mils) wet			
Theoretical Coverage	8.80 m ² /litre at 80 microns d.f.t and stated volume solids 351 sq.ft/US gallon at 3.2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	2.5 hours	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹
60°C (140°F)	50 minutes	90 minutes	90 minutes	Extended ¹
¹ See International Protective Coatings Definitions and Abbreviations				

REGULATORY DATA

Flash Point (Typical)	Part A 35°C (95°F); Part B 50°C (122°F); Mixed 35°C (95°F)	
Product Weight	1.58 kg/l (13.2 lb/gal)	
VOC	199 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Acrylic Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interthane 3230M the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interthane 3230M must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interthane 3230M.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1)	Agitate Base (Part A) with a power agitator.	
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.	
Mix Ratio	6 part(s) : 1 part(s) by volume		
Working Pot Life	15°C (59°F)	25°C (77°F)	40°C (104°F)
	5 hours	2.5 hours	1.5 hours
Plural Component Airless Spray	Recommended		
Airless Spray	Recommended	Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)	
		For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA713		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Acrylic Polyurethane

PRODUCT CHARACTERISTICS

Interthane 3230M is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Polyurethane based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Gloss level achieved may differ if there is excessive variation in cure temperature and application thickness.

Excessive film thickness and/or over-application of Interthane 3230M will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interthane 3230M to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interthane 3230M.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interthane 3230M can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Intergard 3210

Interthane 3230M may be overcoated with itself or the following topcoats;

Interthane 3230G
Interthane 3230HG
Interthane 3230M
Interthane 3230SG

Acrylic Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		30.2 kg		3.5 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Acrylic Polyurethane

PRODUCT DESCRIPTION

A two component, semi-gloss, low VOC, high solids, fast curing, acrylic polyurethane primer/finish pigmented with zinc phosphate to provide added anti corrosive performance and a durable, decorative finish.

INTENDED USES

Specifically designed as part of the International 3200 product series for use as a single or two coat primer/finish coating system to protect construction and mining heavy machinery, agricultural equipment, railcars, transportation vehicles, material handling and lifting equipment, pumps, valves, gear units and other small motors and machinery.

Interthane 3230SG is particularly suited for use as a rapid drying system for fast handling times and maximising the production throughput. This contributes to lower energy consumption and stoving emissions at or below 40°C compared to conventional alkyd enamel products which typically requires force drying above 40°C.

The main features of Interthane 3230SG are:-

- Good adhesion properties over correctly prepared steel, galvanised steel and stainless steel
- Lead chromate free
- Quick handling times and fast drying at high volume solids
- Good gloss and colour retention
- Versatile application thickness to allow single or two coat applications

PRACTICAL INFORMATION FOR INTERTHANE 3230SG

Colour	Colours available on request			
Gloss Level	50-60 gloss units at 60° angle (See Product Characteristics)			
Volume Solids	72% ± 2%			
Typical Thickness	80-150 microns (3.2-6 mils) dry equivalent to 111-208 microns (4.4-8.3 mils) wet			
Theoretical Coverage	9 m ² /litre at 80 microns d.f.t and stated volume solids 361 sq.ft/US gallon at 3.2 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Assisted Airless Spray, Air Spray, Brush, Plural Component Airless Spray, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	2.5 hours	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹
60°C (140°F)	50 minutes	90 minutes	90 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 35°C (95°F); Part B 50°C (122°F); Mixed 35°C (95°F)	
Product Weight	1.55 kg/l (12.9 lb/gal)	
VOC	204 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Acrylic Polyurethane

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Suitable for use over phosphate washed steel.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) SSPC-SP6. If oxidation has occurred between blasting and application of Interthane 3230SG the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-60 microns (1.6-2.4 mils) is recommended. Lower surface profiles of 20-30 microns (0.8-1.2 mils) can be used to improve the overall aesthetics of the overall paint system.

Stainless Steel, Galvanised Steel and Aluminium

Remove dirt and oils by solvent cleaning or other suitable detergent/cleaner followed by a thorough water rinsing. Sand or abrasive sweep blast to a standard similar to ISO 8501-1:2007 Sa1 or SSPC SP7 to create a surface profile.

Primed Surfaces

The primer surface should be dry and free from all contamination and Interthane 3230SG must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard and patch primed prior to the application of Interthane 3230SG.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1)	Agitate Base (Part A) with a power agitator.	
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.	
Mix Ratio	6 part(s) : 1 part(s) by volume		
Working Pot Life	15°C (59°F) 5 hours	25°C (77°F) 2.5 hours	40°C (104°F) 1.5 hours
Plural Component	Recommended		
Airless Spray	Recommended		
Airless Spray	Recommended Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.) For air-assisted airless spray, use suitable proprietary equipment. Electrostatic spray application will require an appropriate trial.		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA713		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA713. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Acrylic Polyurethane

PRODUCT CHARACTERISTICS

Interthane 3230SG is part of the International 3200 product series and is specifically designed for use where automated paint application and forced curing processes are in operation.

To ensure the correct use of International 3200 product series, it is recommended that the guidance in section 6.4 of ISO 12944 Part 5 (2007) is followed. Contact International Protective Coatings for further advice.

Polyurethane based anti-corrosive products are most suitable for the protection of light industrial steelwork in internal dry environments or on exposed steelwork which is situated in low corrosivity environments corresponding to ISO12944 C1, C2 and C3.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

The gloss levels quoted are typical values achieved with this product. This is subject to application method, dry film thickness and environmental conditions within a controlled OEM painting facility. It is always recommended that appropriate product application trials are carried out to ensure satisfactory levels are achieved.

Gloss level achieved may differ if there is excessive variation in cure temperature and application thickness.

Excessive film thickness and/or over-application of Interthane 3230SG will increase the time to handle, and lengthen drying and overcoating times.

The premature exposure of Interthane 3230SG to ponding water will cause a colour change which may be permanent. This is a cosmetic effect and will not affect the anti-corrosive protection offered by Interthane 3230SG.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interthane 3230SG can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Intergard 3210

Interthane 3230SG may be overcoated with itself or the following topcoats;

Interthane 3230G
Interthane 3230HG
Interthane 3230M
Interthane 3230SG

Acrylic Polyurethane

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		29.5 kg		3.5 kg	
	20 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

High Temperature Silicone

PRODUCT DESCRIPTION

A single component, high temperature coating, based on a moisture curing silicone binder.

The moisture curing crosslinking mechanism allows multiple coats to be applied without heat curing. Suitable for temperatures up to 540°C (1004°F).

INTENDED USES

For the protection of steel from corrosion on areas including flare stacks, chimneys, exhausts, vents and pipework, at temperatures up to 540°C (1004°F).

Where maximum corrosion protection is required, application should be over a zinc silicate primer (e.g. Interzinc 22).

PRACTICAL INFORMATION FOR INTERTHERM 50

Colour	Aluminium, Black
Gloss Level	Not applicable
Volume Solids	45%
Typical Thickness	25 microns (1 mils) dry equivalent to 56 microns (2.2 mils) wet
Theoretical Coverage	18 m ² /litre at 25 microns d.f.t and stated volume solids 722 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Brush, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	90 minutes	5 hours	24 hours	Extended ¹
15°C (59°F)	60 minutes	3 hours	16 hours	Extended ¹
25°C (77°F)	30 minutes	2 hours	12 hours	Extended ¹
40°C (104°F)	15 minutes	1 hour	6 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	25°C (77°F)	
Product Weight	1.13 kg/l (9.4 lb/gal)	
VOC	4.13 lb/gal (495 g/l) 509 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)
See Product Characteristics section for further details		

High Temperature Silicone

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 50, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 25-50 microns (1-2 mils) is recommended.

Hand or Power Tool Preparation

Any coatings present on the surface must be removed prior to the application of Intertherm 50.

Hand or power tool clean to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2½ (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Primed Surfaces

Intertherm 50 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Aluminium Metal Spray

Metal sprayed surfaces should be fresh, clean and free from moisture or surface contamination.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Not recommended	
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment
Brush	Suitable - small areas only	Typically 15-20 microns (0.6-0.8 mils) can be achieved
Roller	Suitable - small areas only	Typically 15-20 microns (0.6-0.8 mils) can be achieved
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA007	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

High Temperature Silicone

PRODUCT CHARACTERISTICS

Intertherm 50 is moisture curing, and does not evolve water vapour during the heat curing mechanism as with standard silicones. Application at thicknesses of 25 microns (1 mil) are therefore possible rather than normal thicknesses of 15 microns (0.6 mil).

Maximum thickness which can be applied in a single coat without subsequent blistering on heating is 40 microns (1.6 mil).

Up to 3 coats at a maximum of 25 microns (1 mil) per coat can be applied without the requirement of heating between coats. This provides maximum corrosion protection when it is not possible to use a zinc silicate priming system.

Intertherm 50 is available in an aluminium or black version. It is recommended that the aluminium version is always used where possible due to its superior performance. The black version should only be used for specialist applications / requirements. For further information contact International Protective Coatings.

Intertherm 50 Aluminium version is suitable for the protection of abrasive blast cleaned steel operating at continuous dry temperatures up to 540°C (1004°F). However, the maximum service temperature over hand prepared substrates is 400°C (752°F).

Intertherm 50 Black version is suitable for the protection of abrasive blast cleaned steel operating at continuous dry temperatures up to 400°C (752°F). However, the maximum service temperature over hand prepared substrates is 300°C (572°F).

When using in high heat service over inorganic zinc primer, the products should be applied in strict accordance with film thickness specifications, since application of excessive thicknesses may cause blistering. Determine that the inorganic zinc primer is thoroughly cured prior to application of the high heat coating by following the curing instructions given on the relevant product data sheet.

When using a zinc silicate primer to obtain maximum corrosion resistance the recommended thickness of zinc silicate is 50 microns (2 mils) dry film thickness to ensure maximum surface strength for any subsequent temperature cycling and to avoid flaking of topcoats.

It is preferable to overcoat zinc silicate before weathering but in cases where this is not possible then the zinc silicate surface should be clean and free of zinc corrosion products.

In corrosive environments, the use of Intertherm 50 Black directly over zinc silicate primer can lead to a marked colour change from black to grey due to the 'salting' of the underlying primer. This colour change can be significantly reduced by first sealing the zinc silicate primer with a single coat of Intertherm 50 Aluminium prior to the application of Intertherm 50 Black. The maximum dry temperature resistance of this system is 400°C (752°F).

Intertherm 50 is not suitable for exposure in acid or alkaline environments.

Intertherm 50 Aluminium version has the following specification approvals:

- BS5493 (1977) : CP7
- Shell Specification DEP 40.48.00.30 Gen. Chapter VI (h)

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

This specialist coating is only compatible with a very limited number of products. Suitable primers are:

Interzinc 22

Suitable topcoats are:

Intertherm 50

For other suitable primers, consult International Protective Coatings.

High Temperature Silicone

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	5 US gal	5 US gal	5 US gal
4.8 litre	4.8 litre	5 litre	
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	5 US gal		50.5 lb
	4.8 litre		5.86 kg
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Phenolic

PRODUCT DESCRIPTION

A highly crosslinked, two component, high build epoxy phenolic coating which combines properties of corrosion and chemical resistance when used in high temperature service. Intertherm 228HS is a next generation epoxy phenolic coating based upon novolac resin technology.

INTENDED USES

Intertherm 228HS has been specifically designed to provide a corrosion resistant barrier when used to protect steelwork beneath thermal insulation in areas subjected to wet and dry cycling.

Suitable for exposure in a wide range of highly corrosive environments, including insulated and uninsulated carbon and stainless steel for use on the exterior of pipework, process vessels etc., operating at temperatures up to 230°C (446°F).

Intertherm 228HS has excellent resistance to "thermal shock" experienced during rapid temperature cycling.

PRACTICAL INFORMATION FOR INTERTHERM 228HS

Colour	Limited range			
Gloss Level	Eggshell			
Volume Solids	70%			
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 143-214 microns (5.7-8.6 mils) wet			
Theoretical Coverage	4.70 m ² /litre at 150 microns d.f.t and stated volume solids 187 sq.ft/US gallon at 6 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	8 hours	28 hours	36 hours	5 days
15°C (59°F)	7 hours	16 hours	24 hours	4 days
25°C (77°F)	5 hours	8 hours	16 hours	3 days
40°C (104°F)	2 hours	4 hours	16 hours	3 days

REGULATORY DATA

Flash Point (Typical)	Part A 28°C (82°F); Part B 55°C (131°F); Mixed 30°C (86°F)		
Product Weight	1.86 kg/l (15.5 lb/gal)		
VOC	2.21 lb/gal (265 g/lit)	EPA Method 24	
	167 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Epoxy Phenolic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000. Where necessary, remove weld spatter and where required smooth weld seams and sharp edges. Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended. Intertherm 228HS must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

Power Tool Cleaning (Small Areas Only)

Intertherm 228HS is suitable for application over power tool cleaned surfaces prepared to a minimum of SSPC-SP11. Note, all scale must be removed and all areas which cannot be prepared adequately should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6.

Stainless Steel

Ensure surface is clean, dry and free from metal corrosion products prior to coating. Light sweep with non-metallic and chloride free abrasive (e.g. aluminium oxide or garnet) to obtain anchor profile of approximately 50 microns (2 mils).

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
	Avoid mixing for prolonged periods as heat generated will significantly reduce pot life.			
Mix Ratio	6 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	5 hours	4 hours	90 minutes	45 minutes
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	62	
		Fluid Tip	AC	
Brush	Suitable - Small areas	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Suitable - Small areas	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Thinner	International GTA220 (or GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Phenolic

PRODUCT CHARACTERISTICS

Intertherm 228HS is typically applied as a two coat system at 100-150 microns (4-6 mils) per coat to give a total coating system dry film thickness of 200-300 microns (8-12 mils).

Care should be taken to avoid over application which can lead to cracking when the full coating system is exposed to elevated temperatures. The total coating system thickness applied should not exceed 350µm (13.8 mils).

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain optimum film build. The use of other methods, e.g. brush or roller, may require more than one coat and are suggested only for small areas and initial stripe coating.

When applying Intertherm 228HS by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

If Intertherm 228HS is to be applied by brush to coat small areas for maintenance purposes, it is recommended that Intertherm 228HS is applied as a three coat system at 65 microns (2.5 mils) per coat to give a total coating system dry film thickness of 195 microns (7.5 mils).

Steel surface temperature must always be a minimum of 3°C (5°F) above dew point. Application at temperatures below 10°C (50°F) will result in extended drying times. The relative humidity during application and curing should not exceed 80%. When applying Intertherm 228HS in confined spaces ensure adequate ventilation.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected.

The curing times will vary depending upon dry film thickness and conditions that exist during application and throughout curing periods.

Maximum performance is not attained until the film has completely cured. Cure is a function of temperature, humidity and film thickness. Normally Intertherm 228HS coating systems at 300 microns (12 mils) dry film thickness will exhibit full and complete cure for optimal temperature resistance in 7-10 days at 25°C (77°F). Curing times are proportionately shorter at elevated temperatures and longer at lower temperatures.

In common with all epoxies Intertherm 228HS will chalk and "yellow" on exterior exposure. Intertherm 228HS will also show a marked colour change when exposed to higher temperatures. However, these phenomena are not detrimental to anti-corrosive performance provided recommended temperature limits are not exceeded. Intertherm 228HS is suitable for protection of insulated steelwork, which may cycle between wet and dry conditions, and is operating at continuous in-service temperatures ranging from ambient up to 200°C (392°F), with intermittent surges up to 230°C (446°F).

Intertherm 228HS is an immersion grade epoxy phenolic coating, and is suitable for use in situations of continuous intimate contact with wet insulation.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

This system is self-priming and is not suitable for application over other primers.

Intertherm 228HS is normally topcoated with itself, for other suitable topcoats please consult International Protective Coatings.

Epoxy Phenolic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	17.14 litre	20 litre	2.86 litre	5 litre
	5 US gal	4.29 US gal	5 US gal	0.71 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	35.11 kg		2.75 kg	
	5 US gal	77.1 lb		6.5 lb	
STORAGE	Shelf Life	12 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 31/03/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Silicone

PRODUCT DESCRIPTION

A single pack, temperature indicating paint based upon a modified silicone.

The colour changes from green to blue at temperatures between 180-220°C (356-428°F), and from blue to white at temperatures between 310-350°C (590-662°F).

INTENDED USES

A functional coating for identification of hot spots and internal insulation failures, exhibiting a visual colour change in response to temperature rise.

Typically used on reaction vessels on chemical and petrochemical sites as a one-time warning of dangerous temperature increases.

This product can be used in two coats as a self-priming system over stainless steel, or over an inorganic zinc primer for optimum corrosion protection to carbon steel substrates.

Suitable for application both in the fabrication yard and on-site.

PRACTICAL INFORMATION FOR INTERTHERM 715

Colour	Green (at ambient temperature)			
Gloss Level	Eggshell			
Volume Solids	42%			
Typical Thickness	25 microns (1 mils) dry equivalent to 60 microns (2.4 mils) wet			
Theoretical Coverage	16.80 m ² /litre at 25 microns d.f.t and stated volume solids 674 sq.ft/US gallon at 1 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Air Spray, Brush, Roller			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
5°C (41°F)	60 minutes	3 hours	3 hours	Extended ¹
15°C (59°F)	40 minutes	2 hours	2 hours	Extended ¹
25°C (77°F)	30 minutes	90 minutes	90 minutes	Extended ¹
40°C (104°F)	15 minutes	45 minutes	45 minutes	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	34°C (93°F)		
Product Weight	1.20 kg/l (10.0 lb/gal)		
VOC	4.58 lb/gal (550 g/l) 481 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Modified Silicone

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 715, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Shop Primed Surfaces

Intertherm 715 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Not recommended		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment	
Brush	Suitable - small areas only	Typically 25 microns (1.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 25 microns (1.0 mils) can be achieved	
Thinner	International GTA713	Do not thin more than allowed by local environmental legislation	
Cleaner	International GTA713		
Work Stoppages	Thoroughly flush all equipment with International GTA713. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with International GTA713. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Modified Silicone

PRODUCT CHARACTERISTICS

Intertherm 715 is intended for application to external steel surfaces which are internally insulated to reduce the surface temperature to below 100°C (212°F). Optimum performance is achieved when the surface temperature is below 50°C (122°F). The function of the coating is to give a visual indication of hotspots or where insulation may have failed and the approximate temperature the steelwork has reached in that area. It is not intended to provide an accurate gradient of temperature across a surface; thermocouples should be used to provide this data.

Gradual changes in colour will normally occur as the surface temperature of the substrate increases in the following ranges:

180-220°C (356-428°F)	Green to Blue
310-350°C (590-662°F)	Blue to White

Normal continuous surface temperature of 100°C and above will cause the original colour to gradually change over a period of time. The higher above 100°C, the faster the change. The coating will also show colour drift upon prolonged exposure to continuous elevated operating temperatures.

Maximum continuous dry temperature resistance for Intertherm 715 is 350°C (662°F).

Intertherm 715 is a one time warning system. The colour change is permanent. After warning of a temperature change the coating must be reapplied after proper surface preparation has been performed.

Typical service life of this coating is 16 to 24 months before recoating is necessary.

When using Intertherm 715 over inorganic zinc primer, the products should be applied in strict accordance with film thickness specifications, since application of excessive thicknesses may cause blistering. Determine that the inorganic zinc primer is thoroughly cured prior to application of the Intertherm 715 by following the curing instructions given on the relevant product data sheet.

When zinc silicate primers have been allowed to weather, all zinc salts must be removed by water washing/bristle brushing prior to the application of Intertherm 715.

Intertherm 715 may be applied to warm surfaces between 40-80°C (104-176°F) by thinning with one part of International GTA713 to one part Intertherm 715, then applying multi-coats in thin wet films to achieve the specified dry film thickness.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intertherm 715 can be applied directly to abrasive blast cleaned surfaces. However, when improved anti-corrosive performance is required the following primers are recommended:

Interzinc 22

Intertherm 715 is not normally topcoated with products other than itself.

For other suitable primers, consult International Protective Coatings.

Modified Silicone

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Vol	Pack
	5 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	5 litre	6.6 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Heat Resistant Cold Spray Aluminium

PRODUCT DESCRIPTION A two component, high build, high temperature resistant 'cold spray' applied coating, based on titanium modified inorganic copolymer technology and pigmented with metallic aluminium flake.

Intertherm 751CSA is a novel high performance coating that is applied using standard application equipment and cures effectively at ambient temperatures. Capable of providing corrosion protection to steel in both atmospheric service and under thermal insulation operating in thermal cyclical conditions between -196°C (-321°F) and 400°C (752°F) without the need for additional heat curing, prior to being placed in service.

INTENDED USES

Intertherm 751CSA has been specifically designed to provide a corrosion resistant barrier when used to protect steelwork beneath thermal insulation in areas subjected to wet and dry cycling.

Typically applied direct to metal, as a one or two coat system, Intertherm 751CSA is particularly effective in maintenance situations when used to mitigate the damaging effects of corrosion under insulation (CUI).

Intertherm 751CSA affords excellent resistance to 'thermal shock' experienced during rapid temperature cycling, and provides effective protection to steelwork operating under cyclic conditions.

Suitable for application to hot surfaces operating in high temperature service up to 150°C (302°F).

Ideally suited for use in the chemical process, offshore productions, petrochemical and power industries, especially refineries and process units, pipe work, chimneys, vessels, flare stacks, exhausts, furnaces, exteriors of reactors, power plants, vents and other structures. Significant volumes of insulated and uninsulated steelwork can be coated with a single specification, thereby reducing complexity and smoothing the progress of maintenance schedules etc.

PRACTICAL INFORMATION FOR INTERTHERM 751CSA

Colour	Aluminium
Gloss Level	Not applicable
Volume Solids	61%
Typical Thickness	100-200 microns (4-8 mils) dry equivalent to 164-328 microns (6.6-13.1 mils) wet
Theoretical Coverage	3.50 m ² /litre at 175 microns d.f.t and stated volume solids 140 sq.ft/US gallon at 7 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors

Method of Application Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	2 hours	18 hours	36 hours	Not applicable ¹
15°C (59°F)	90 minutes	12 hours	24 hours	Not applicable ¹
25°C (77°F)	60 minutes	10 hours	16 hours	Not applicable ¹
40°C (104°F)	30 minutes	8 hours	12 hours	Not applicable ¹

¹ For overcoating intervals with topcoats, refer to International Protective Coatings.

REGULATORY DATA

Flash Point (Typical) Part A 32°C (90°F); Part B 22°C (72°F); Mixed 25°C (77°F)

Product Weight 1.28 kg/l (10.7 lb/gal)

VOC 3.50 lb/gal (420 g/l)
332 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Heat Resistant Cold Spray Aluminium

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 751CSA, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50 microns (2 mils) is recommended.

Power Tool Cleaning (Small Areas Only)

Dependent on the service conditions Intertherm 751CSA can be applied over power tool cleaned surfaces prepared to a minimum of SSPC-SP11 with an irregular 40 micron (1.6 mil) profile. Note, all scale must be removed and all areas which cannot be prepared adequately should be spot blasted to a minimum standard of Sa2½ (ISO 8501-1:2007) or SSPC-SP6. Please consult International Protective Coatings for the latest technical advice regarding this situation prior to commencing application of the coating.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

Consult the Intertherm 751CSA Application Guidelines for more details regarding surface preparation.

Stainless Steel

Ensure surface is clean, dry and free from metal corrosion products prior to application. Light sweep with nonmetallic and chloride free abrasive (e.g. aluminium oxide or garnet) to obtain anchor profile of approximately 50 microns (2 mils).

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1)	Agitate Base (Part A) with a power agitator.		
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	54 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	2 hours	2 hours	90 minutes	60 minutes
Airless Spray	Suitable	Tip Range 0.38-0.48 mm (15-19 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment		
Brush	Suitable	Typically 40-75 microns (1.6-3.0 mils) can be achieved		
Roller	Suitable	Typically 50-100 microns (2.0-4.0 mils) can be achieved		
Thinner	International GTA007	Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA007			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA007. Once units of material have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Heat Resistant Cold Spray Aluminium

PRODUCT CHARACTERISTICS

The detailed Intertherm 751CSA Application Guidelines should be consulted prior to use.

Intertherm 751CSA is recommended for the protection of steelwork operating at continuous operating temperatures between -196°C (-321°F) and 400°C (752°F), and is also suitable for the provision of corrosion protection to steelwork in both atmospheric service, and under thermal insulation subject to cyclic wet and dry conditions.

Intertherm 751CSA is suitable for use with steelwork in situations of continuous intimate contact with insulation operating at continuous in-service temperatures ranging from ambient up to 400°C (752°F).

Intertherm 751CSA is typically applied direct to correctly prepared steelwork as a two coat system at 100 microns (4 mils) per coat to give a total coating system dry film thickness of 200 microns (8 mils). Applications at thicknesses up to 200 microns (8 mils) in a single coat are also possible. The maximum applied total dry film thickness should be less than 350microns (14mils) at all times.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 150 microns (6 mils), which in practice should equate to a minimum specification of 175 microns (7 mils).

When applying Intertherm 751CSA by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Intertherm 751CSA can be applied to 'hot' substrates with surface temperatures up to 150°C (302°F), making the product particularly suitable for use during periodic maintenance shutdown periods with no need for additional heat curing, prior to being placed in service. Please refer to the Intertherm 751CSA Application Guidelines for more detailed information.

Where multi-coat systems are to be used, optimum intercoat adhesion is best achieved by keeping the overcoating interval as short as possible.

Intertherm 751CSA reacts with atmospheric moisture, and as such when in the can should remain covered at all times. Failure to keep the tin covered will result in skinning of unused material and loss of pot life.

When applying Intertherm 751CSA in confined spaces ensure adequate ventilation.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with many products containing leafing aluminium pigmentation Intertherm 751CSA may be prone to developing a "polished" appearance in areas of minor mechanical damages etc. However, this phenomenon is merely aesthetic and is not detrimental to the anti-corrosive performance of the product.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intertherm 751CSA will normally be applied direct to metal and is not normally overcoated with any product other than itself when used under thermal insulation.

Overcoating of Intertherm 751CSA for colour identification purposes may be possible. Please consult International Protective Coatings for the latest technical advice.

Heat Resistant Cold Spray Aluminium

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Intertherm 751CSA Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	1 US gal	0.98 US gal	1 US gal	0.02 US gal	0.06 US gal
	3.74 litre	3.67 litre	5 litre	0.07 litre	0.12 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	1 US gal	10.8 lb		0.3 lb	
	4 litre	5.54 kg		0.1 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

High Temperature Silicone Acrylic

PRODUCT DESCRIPTION

A single component, intermediate temperature finish based on temperature resistant silicone and acrylic resins with thermally stable pigmentation.

INTENDED USES

For use in a wide range of industrial environments including petrochemical plants, oil refineries, offshore structures, chemical plants and power stations. Suitable for areas subject to intermediate service temperature that require a coloured finish.

A heat resistant finish coat for application over properly primed steelwork. For use at both new construction and as a maintenance coating.

Suitable for steelwork operating at temperatures up to 260°C (500°F). Does not require heating between coats.

PRACTICAL INFORMATION FOR INTERTHERM 875

Colour	Limited colour range available
Gloss Level	Gloss
Volume Solids	39%
Typical Thickness	25-40 microns (1-1.6 mils) dry equivalent to 64-103 microns (2.6-4.1 mils) wet
Theoretical Coverage	15.60 m ² /litre at 25 microns d.f.t and stated volume solids 626 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	60 minutes	3 hours	4 hours	Extended ¹
15°C (59°F)	45 minutes	2 hours	3 hours	Extended ¹
25°C (77°F)	30 minutes	90 minutes	2 hours	Extended ¹
40°C (104°F)	10 minutes	45 minutes	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	24°C (75°F)		
Product Weight	1.07 kg/l (8.9 lb/gal)		
VOC	4.68 lb/gal (562 g/l) 534 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

High Temperature Silicone Acrylic

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Intertherm 875, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Intertherm 875 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination, and Intertherm 875 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

In the case of zinc primers, where necessary, remove weld spatter, smooth weld seams and sharp edges and blast clean welds and damaged areas to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. The shop primer or other primer surface should be dry and free of all contamination (oil, grease, salt etc) and overcoated with Intertherm 875 within the overcoating intervals specified for the primer (consult the relevant product data sheet).

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

Ensure the zinc primer has fully cured and is clean, dry and free from zinc salts prior to overcoating.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.	
Mix Ratio	Not applicable	
Airless Spray	Not recommended	
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment
Brush	Suitable - small areas only	Typically 25 microns (1.0 mils) can be achieved
Roller	Suitable - small areas only	Typically 25 microns (1.0 mils) can be achieved
Thinner	International GTA007 (International GTA013)	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA007	
Work Stoppages	Thoroughly flush all equipment with International GTA007. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.	
Clean Up	Clean all equipment immediately after use with International GTA007. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

High Temperature Silicone Acrylic

PRODUCT CHARACTERISTICS

For optimum corrosion protection at temperatures up to 260°C (500°F) Intertherm 875 should be applied over an inorganic zinc silicate primer. The preferred system for use with inorganic zinc silicate is to apply a mist coat followed by a full coat of Intertherm 875 at 40 microns (1.6 mils) dry film thickness. Application of two full coats can sometimes result in pinholes in the topcoat.

When overcoating weathered zinc silicate primers the surface should be clean, free from contamination, and the presence of zinc corrosion products.

Zinc epoxy primers will also provide satisfactory anti-corrosive protection for in-service temperatures up to 150°C (300°F).

This material is air drying and is suitable for application both in the fabrication yard and on-site where stoving facilities are not available.

Over-application can lead to blistering at high temperatures

Some minor colour and gloss changes will be visible upon high heat exposure.

Note that some yellowing will occur with prolonged exposure of the white finish to temperatures of 260°C (500°F).

Maximum continuous dry temperature resistance for Intertherm 875 is 260°C (500°F).

Intertherm 875 can be applied to substrates with surface temperatures at time of application up to 40°C (104°F).

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

This specialist material is not normally topcoated, and is only compatible with a very limited number of primers.

Suitable primers are:

Interzinc 12	Up to 260°C (500°F) continuous dry temperature
Interzinc 22	Up to 260°C (500°F) continuous dry temperature
Interzinc 52	Up to 150°C (300°F) continuous dry temperature
Interzinc 315	Up to 150°C (300°F) continuous dry temperature

For other suitable primers, consult International Protective Coatings.

High Temperature Silicone Acrylic

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size		
		Vol	Pack
	20 litre	20 litre	20 litre
5 US gal	5 US gal	5 US gal	
For availability of other pack sizes, contact International Protective Coatings.			
SHIPPING WEIGHT (TYPICAL)	Unit Size		
	20 litre	23.4 kg	
	5 US gal	53.6 lb	
STORAGE	Shelf Life	24 months minimum at 25°C. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.	

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Zinc Dust Graphite

PRODUCT DESCRIPTION

A two component, oleoresinous primer, pigmented with metallic zinc dust and graphite.

INTENDED USES

As an anti-corrosive industrial maintenance primer for steel at temperatures between 150°C (302°F) and 450°C (842°F).

Suitable for use as an industrial maintenance coating on correctly prepared abrasive blast cleaned, hand and power tool cleaned steel on all high temperature structures such as flare stacks, exhausts, chimneys and pipework.

PRACTICAL INFORMATION FOR INTERTHERM 890

Colour	Dark Grey
Gloss Level	Matt
Volume Solids	57%
Typical Thickness	50 microns (2 mils) dry equivalent to 88 microns (3.5 mils) wet
Theoretical Coverage	11.40 m ² /litre at 50 microns d.f.t and stated volume solids 457 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	24 hours	72 hours ²	48 hours	Extended ¹
15°C (59°F)	16 hours	48 hours ²	36 hours	Extended ¹
25°C (77°F)	12 hours	36 hours ²	24 hours	Extended ¹
40°C (104°F)	6 hours	24 hours ²	24 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

² This product will not fully harden until heated.

REGULATORY DATA

Flash Point (Typical)	Mixed 44°C (111°F)	
Product Weight	2.30 kg/l (19.2 lb/gal)	
VOC	133 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Zinc Dust Graphite

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

For optimum performance: Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intertherm 890, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

However, Intertherm 890 may also be applied to a surface abrasive blast cleaned to a minimum Sa1 (ISO 8501-1:2007) C or D grade rusting, or SSPC SP7.

Hand or Power Tool Preparation

The product is designed for application to surfaces prepared to St2 (ISO 8501-1:2007) or SSPC SP2. When using power tools care should be taken to avoid surface polishing. The product may also be applied to surfaces which have been sweep blasted to Sa2. On poor surfaces brush application will assist performance.

APPLICATION

Mixing	Intertherm 890 is supplied in two parts, a liquid Binder base component (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) whilst stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.			
Mix Ratio	4.05 part(s) : 1.00 part(s) by volume			
Working Pot Life	5°C (41°F) 48 hours	15°C (59°F) 24 hours	25°C (77°F) 18 hours	40°C (104°F) 12 hours
Airless Spray	Not recommended			
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Air Spray (Conventional)	Suitable	Use suitable proprietary equipment		
Brush	Recommended			
Roller	Recommended			
Thinner	International GTA004	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA004			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA004. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with GTA004. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Zinc Dust Graphite

PRODUCT CHARACTERISTICS

Intertherm 890 is designed for use for on-site maintenance painting and will not become hard until the operating temperature is achieved. Even after heat curing this product does not achieve a high film strength, making it unsuitable for factory application even where stoving ovens can be utilised.

Airless spray is not recommended as an application method because of the difficulty of controlling thickness to 50 microns (2 mils) and the likelihood of 'packing out' of the powder component which can lead to equipment failure.

Over-application will cause Intertherm 890 to stay soft for long periods and will potentially cause delamination when heated to the required operating temperature.

Due to the presence of zinc dust in this material, Intertherm 890 is not suitable for exposure to acid or alkaline environments.

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry film thickness of 50 microns (2 mils) over hand prepared steel.

Over-application of Intertherm 890 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

The maximum DFT which should be applied before heating is 75 microns (3 mils) otherwise blistering will occur. Two or more coats cannot be applied without heating between coats.

Maximum continuous dry temperature resistance for Intertherm 890 is 450°C (842°F).

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Intertherm 890 is only recommended for application to correctly prepared steel substrate.

All topcoating systems should be applied as thin coats (15 microns : 0.5 mils DFT) to prevent blistering.

Up to 250°C (482°F) Intertherm 875

Up to 315°C (599°F) Intertherm 891

Up to 450°C (842°F) Intertherm 50

For other suitable topcoats, consult International Protective Coatings.

Zinc Dust Graphite

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	4.01 litre	5 litre	0.99 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		7.5 kg		4.9 kg	
	5 litre				
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Oleoresinous Aluminium

PRODUCT DESCRIPTION

A one component, general purpose heat resistant paint, based on air drying oleoresinous resins, and pigmented with aluminium flake.

INTENDED USES

As a heat resistant coating for general site use or as an industrial maintenance coating on both ambient and high temperature steelwork up to 315°C (600°F) where an economical aluminium finish is required.

Suitable for all types of operations including refineries, offshore structures, power, petrochemical and chemical plants.

PRACTICAL INFORMATION FOR INTERTHERM 891

Colour	Aluminium
Gloss Level	Not Applicable
Volume Solids	48%
Typical Thickness	15-25 microns (0.6-1 mils) dry equivalent to 31-52 microns (1.2-2.1 mils) wet
Theoretical Coverage	19.20 m ² /litre at 25 microns d.f.t and stated volume solids 770 sq.ft/US gallon at 1 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	18 hours	72 hours	24 hours	Extended ¹
15°C (59°F)	12 hours	36 hours	24 hours	Extended ¹
25°C (77°F)	8 hours	24 hours	24 hours	Extended ¹
40°C (104°F)	5 hours	16 hours	16 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	43°C (109°F)	
Product Weight	1.00 kg/l (8.3 lb/gal)	
VOC	3.50 lb/gal (420 g/l) 456 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Oleoresinous Aluminium

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Primed Surfaces

Intertherm 891 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intertherm 891 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intertherm 891.

Metallic Zinc Primed Surfaces

Intertherm 891 is suitable for application to steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10.

APPLICATION

Mixing	This material is a one component coating and should always be mixed thoroughly with a power agitator before application.		
Mix Ratio	Not applicable		
Airless Spray	Recommended	Tip Range 0.33-0.41 mm (13-16 thou) Total output fluid pressure at spray tip not less than 112 kg/cm ² (1593 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 15-25 microns (0.6-1.0 mils) can be achieved	
Thinner	International GTA004	Do not thin more than allowed by local environmental legislation.	
Cleaner	International GTA004		
Work Stoppages	Thoroughly flush all equipment with International GTA004. All unused material should be stored in tightly closed containers. Partially filled containers may show surface skinning and/or a viscosity increase of the material after storage. Material should be filtered prior to use.		
Clean Up	Clean all equipment immediately after use with GTA004. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Oleoresinous Aluminium

PRODUCT CHARACTERISTICS

The presence of leafing aluminium in this formulation, whilst imparting heat and corrosion resistance, can also retard access to atmospheric oxygen. As this is an air drying system curing by atmospheric oxidation, over-application will severely retard through curing.

For maximum temperature resistance it is best to specify 15 microns (0.5 mils) DFT as the volatile nature of heat sensitive organic materials will cause film defects in thicker films, including blistering.

Over-application of Intertherm 891 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Over-application of Intertherm 891 will lead to blistering at high temperatures.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

For maximum corrosion resistance a zinc silicate primer should be used. A mist coat may be required to prevent pinholing. It is preferable to overcoat the zinc silicate before weathering but in cases where this is not possible then the zinc silicate surface should be clean and free from zinc salts.

When using Intertherm 891 over inorganic zinc primer, the products should be applied in strict accordance with film thickness specifications, since application of excessive thicknesses may cause blistering. Determine that the inorganic zinc primer is thoroughly cured prior to application of the Intertherm 891 by following the curing instructions given on the relevant product data sheet.

Alternatively, Interzinc 890 zinc dust graphite primer may be specified. However, this product does not possess the ultimate corrosion resistance of zinc silicates, but is capable of tolerating lower degrees of surface preparation which may prevail in maintenance solutions

Maximum continuous dry temperature resistance for Intertherm 891 is 315°C (600°F). For temperatures greater than 315°C (600°F) Intertherm 50 should be used.

Intertherm 891 is not suitable for exposure to acid or alkaline environments.

Intertherm 891 is not designed for continuous water immersion.

When used as a general purpose aluminium paint Intertherm 891 can be used to overcoat all tightly adherent, clean old alkyd systems.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Recommended priming system for dry temperatures up to 100°C (212°F) (continuous):

Interprime 198

Recommended priming system for dry temperatures up to 315°C (600°F) (continuous):

Intertherm 890
Interzinc 12
Interzinc 22
Interzinc 250

For other suitable primers, consult International Protective Coatings.

Oleoresinous Aluminium

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	
	Vol	Pack
	5 litre	5 litre
	20 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.		
SHIPPING WEIGHT (TYPICAL)	Unit Size	
	5 litre	20 litre
		5.3 kg
		21.3 kg
STORAGE	Shelf Life	24 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Syntactic Insulation

PRODUCT DESCRIPTION

Intertherm 7050 is a high performance thermal insulation system based on a solvent free, 100% solids, epoxy syntactic foam.

Designed to provide both thermal insulation and corrosion protection in its own right and also when used as part of the Chartek fireproofing system.

Suitable for use at continuous operating temperatures from -40°C (-40°F) up to +120°C (+248°F).

Application techniques include spray, trowel and moulding/casting.

Intertherm 7050 is impervious to moisture and is extremely resilient to damage and chemical spills.

INTENDED USES

Thermal Insulation: To provide thermal insulation of pipes, ductwork, vessels and equipment operating at temperatures between -40°C (-40°F) and +120°C (+248°F) for either heat conservation or personnel protection.

Fire Protection: Intertherm 7050 may also be used as an underlayment or overlayment for International Protective Coatings' Chartek fireproofing systems, allowing Chartek's use on substrates operating between 80°C (176°F) and 120°C (248°F) or to provide protection to Chartek from external heat sources.

Preventing Corrosion Under Insulation: In addition to its insulation properties, Intertherm 7050 provides excellent long term corrosion protection thereby removing corrosion under insulation (CUI) concerns associated with traditional insulation systems. Requiring no external cladding, its high compressive and impact strength provides tremendous durability, eliminating the problem of damage to insulation from foot traffic and accidental loads.

Thermal Shock Protection: Tested and proven in cryogenic spills to prevent the effects of low temperature embrittlement of steel or thermal shock cracking/spalling of concrete. When used with Chartek fireproofing systems Intertherm 7050 can be used to provide combined thermal shock and fire protection from incidents such as spills and ruptures at LNG processing and storage facilities.

Not to be used in areas where only 'non-combustible' materials are permitted.

PRACTICAL INFORMATION FOR INTERTHERM 7050

Colour	Pale pink when mixed (Part A - Pink; Part B - White)			
Gloss Level	Not applicable			
Volume Solids	100%			
Typical Thickness	Dependent on insulation and anti-corrosive requirements. Typically 5 - 50 mm (0.2 - 2 inches)			
Density	Nominal: 0.57g/cm ³ (36 lb/cu.ft.) Note: Final density depends on method of application and may vary. Typically, spray density will be up to 7% above nominal			
Method of Application	Trowel, Hot Twin Feed Airless Spray			
Drying Time	Overcoating interval with self			
Temperature	Touch Dry	Hard Dry	Minimum	Maximum
10°C (50°F)	4 hours	30 hours	4 hours	48 hours
15°C (59°F)	2 hours	12 hours	2 hours	48 hours
25°C (77°F)	1 hour	6 hours	2 hours	48 hours
40°C (104°F)	1 hour	4 hours	1 hour	24 hours

Dry times determined at 25 mm (1 inch) dry film thickness. For extended overcoating intervals please consult International Protective Coatings.

REGULATORY DATA

Flash Point (Typical) Part A >106°C (223°F); Part B >106°C (223°F); Mixed >106°C (223°F)

VOC 0.00 lb/gal (0 g/lit)
0 g/kg EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Syntactic Insulation

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Abrasive Blast Cleaning

Abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC-SP10 is the preferred method of surface preparation, however commercial blast cleaning to Sa2 (ISO 8501-1:2007) or SSPC-SP6 is acceptable when a suitable primer is used. Intertherm 7050 may be applied directly to the blast cleaned substrate or over an approved anti-corrosive primer. If oxidation has occurred between blasting and application of primer or Intertherm 7050, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Primed Surfaces

Intertherm 7050 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Intertherm 7050 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intertherm 7050

For surfaces abrasive blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10, the preferred primer for high temperature service is Intertherm 228 applied at a dry film thickness of 75-100 microns (3-4 mils).

For surfaces abrasive blast cleaned to Sa2 (ISO 8501-1:2007) or SSPC-SP6 or power tool cleaned to SSPC-SP11, the preferred primer for high temperature service is Interplus 256 applied to a dry film thickness of 150-200 microns (6-8 mils).

APPLICATION

Mixing

Hand Application

Individual components must be stored at 21-32°C (70-90°F) for 24 hours prior to mixing.

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

- (1) Agitate Base (Part A) with a power agitator.
- (2) Agitate Curing Agent (Part B) with a power agitator.
- (3) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Plural Component Spray Application

Consult Intertherm 7050 Application Manual

Mix Ratio

Always mix full units.

Working Pot Life

10°C (50°F)	15°C (59°F)	25°C (77°F)
30 minutes	30 minutes	15 minutes

Plural Component Airless Spray

Recommended

Consult Intertherm 7050 Application Manual

Trowel

Recommended

Application is carried out using standard plastering techniques.

The first coat should be hand trowelled to 3-6 mm (1/8-1/4 inch) thickness to ensure full wetting of the substrate.

The final surface should be rolled to remove trowel marks and high spots and achieve a uniform thickness. Use short nap rollers dampened with International GTA123.

When the required total film thickness cannot be reached in one shift, the Intertherm 7050 surface should be scratched to provide a key for subsequent coats.

Thinner

DO NOT THIN

Cleaner

International GTA822

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up

Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Syntactic Insulation

PRODUCT CHARACTERISTICS

The following conditions shall apply (or be generated) throughout the application:

Minimum Air Temperature	10°C (50°F) - Recommended
Maximum Humidity	85 %
Surface Temperature	A minimum of 3°C (5°F) above dew point of surrounding air.

General

All surfaces to be coated should be clean and dry at all times. Intertherm 7050 may be applied when the surrounding air temperature is at a minimum of 5°C (41°F) as long as the surface temperature is at least 3°C (5°F) above the dew point temperature.

In these conditions curing will be extended and there is the possibility of amine bloom forming on the Intertherm 7050 surface that may adversely affect the adhesion of subsequent coatings. If an amine bloom is formed, it should be removed by solvent wipe.

Application

Application by moulding or casting is also recommended for Intertherm 7050. It may be dispensed into moulds, e.g. pipe half shells, using modified plural component application equipment. Please consult the Intertherm 7050 Application Manual for further information.

Maximum film build in one coat is best attained by plural component airless spray. When applying by trowel or other methods, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Where high thicknesses are to be applied (typically over 40-50 mm (1.6-2.0 inches) depending on environmental conditions) the coating should be applied in two stages, allowing the first stage to cure before the second is applied. This is to prevent excessive heat building up due to the exothermic reaction that occurs during cure. For further advice please contact International Protective Coatings.

Equipment

Only equipment qualified by International Protective Coatings shall be used as detailed in the Intertherm 7050 Application Manual or by the International Protective Coatings Technical Service Representative.

Alternative Surface Preparation

International Protective Coatings' procedures are also developed and available under certain project specific circumstances for wet blasting, needle gunning and ultra high pressure water blasting - Seek specific advice from International Protective Coatings.

Operating Notes

The maximum operating temperature for Intertherm 7050 is 120°C (248°F).

In common with all epoxies, Intertherm 7050 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive or insulation performance.

Where a durable cosmetic finish or reduced surface spread of flame is required, overcoat with recommended topcoats.

Epoxy Wrap System

For severe service conditions requiring a more durable outer layer over the Intertherm 7050, International's flexible wrap system may be used. This system consists of a knitted glass tape of approximately 127 mm (5 inches) wide overlapped 50% and impregnated with a flexible epoxy resin.

Please consult the Intertherm 7050 Application Manual for further information.

D.F.T. Calculation

The required thickness of Intertherm 7050 is dependent on the design requirements and operating conditions of the structure requiring protection.

D.F.T. requirements for standard pipe sizes and common service conditions are available from published tables. For other applications, individual D.F.T. recommendations will be provided by International Protective Coatings.

Thermal Properties

Thermal Conductivity:	0.118 W/(m·K) at 20°C ASTM C177 (0.068 BTU/Ft·Hr·°F at 68°F)
	0.120 W/(m·K) at 60°C ASTM C177 (0.069 BTU/Ft·Hr·°F at 140°F)

Specific Heat:	1250 J/(kg·K) (0.299 BTU/(lb·°F))
----------------	-----------------------------------

SYSTEMS COMPATIBILITY

Intertherm 7050 may be applied directly to correctly prepared abrasive blasted substrates. Where a primer is used, the following are recommended:

Intertherm 228
Interplus 256

Intertherm 7050 is generally overcoated for identification purposes or to provide additional protection.

The following topcoats are recommended to provide a durable cosmetic finish:

Interfine 629HS
Interthane 990

Ideally, Intertherm 7050 should be overcoated once hard dry (see table on page 1 for guidance) and before the coating becomes contaminated.

For topcoats designed to reduce surface spread of flame or details of other approved primers/topcoats, please consult International Protective Coatings.

Syntactic Insulation

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Weight	Pack	Weight	Pack
	30 kg	10.7 kg	20 litre	8.6 kg	20 litre
<p>¹ The unit is supplied as: 2 x 10.7 kg Part A in 20 litre containers; 1 x 8.6 kg Part B in a 20 litre container. For availability of other pack sizes, contact International Protective Coatings.</p>					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	30 kg	13.55 kg		11.8 kg	
STORAGE	Shelf Life	6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Inorganic Zinc Rich Silicate

PRODUCT DESCRIPTION

Part of the Interzinc 22 Series of products.

A two component, rapid recoat, fast curing solvent based inorganic zinc rich ethyl silicate primer. Conforms to SSPC Paint 20 Level 1.

Available in ASTM D520, Type II zinc dust version as standard.

INTENDED USES

A zinc rich primer suitable for use with a wide range of high performance systems and topcoats in both maintenance and new construction of bridges, tanks, pipework, offshore structures and structural steelwork.

Provides excellent corrosion protection for correctly prepared steel substrates, up to temperatures of 540°C (1004°F) when suitably topcoated.

Fast curing primer capable of application in a wide range of climatic conditions.

PRACTICAL INFORMATION FOR INTERZINC 22

Colour	Green Grey
Gloss Level	Matt
Volume Solids	63%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 79-119 microns (3.2-4.8 mils) wet
Theoretical Coverage	8.40 m ² /litre at 75 microns d.f.t and stated volume solids 337 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	30 minutes	3 hours	18 hours	Extended ¹
15°C (59°F)	20 minutes	90 minutes	9 hours	Extended ¹
25°C (77°F)	10 minutes	1 hour	4.5 hours	Extended ¹
40°C (104°F)	5 minutes	30 minutes	1.5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

The drying times quoted have been determined at the quoted temperature and 55% relative humidity. The 5°C (41°F) time was determined at 60% relative humidity. Prior to overcoating, verify a value of 4 via ASTM D4752 MEK rub test. See Product Characteristics section for more details on overcoating.

REGULATORY DATA

Flash Point (Typical)	Part A 19°C (66°F); Mixed 19°C (66°F)	
Product Weight	2.44 kg/l (20.4 lb/gal)	
VOC	3.92 lb/gal (470 g/l) 216 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Inorganic Zinc Rich Silicate

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 (or SSPC-SP10 for optimum performance). If oxidation has occurred between blasting and application of Interzinc 22, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-75 microns (1.5-3.0 mils) is recommended.

Shop Primed Steelwork

Interzinc 22 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Damaged / Repair Areas

All damaged areas should ideally be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. However, it is acceptable that small areas can be power tool cleaned to Pt3 (JSRA SPSS:1984) or SSPC-SP11, provided the area is not polished. Repair of the damaged area can then be carried out using a recommended zinc epoxy primer - consult International Protective Coatings for specific advice.

APPLICATION

Mixing	Interzinc 22 is supplied in two parts, a liquid Binder base component QHA285 (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) whilst stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.			
Mix Ratio	3.1 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 12 hours	15°C (59°F) 8 hours	25°C (77°F) 4 hours	40°C (104°F) 2 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 112 kg/cm ² (1593 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable - small areas only	Typically 25-50 microns (1.0-2.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA803 (International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA803 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA803. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA803. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Inorganic Zinc Rich Silicate

PRODUCT CHARACTERISTICS

Prior to overcoating, Interzinc 22 must be clean, dry and free from both soluble salts and excessive zinc corrosion products.

Surface temperature must always be a minimum of 3°C above dew point.

When applying Interzinc 22 in confined spaces ensure adequate ventilation.

The minimum overcoating interval is dependent upon the relative humidity during cure.

If thinning is required to assist spray application in warmer climates, (typically >28°C (82°F)), it is recommended that International GTA803 thinners are used

It is recommended that prior to overcoating a solvent rub test to ASTM D4752 should be undertaken. A value of 4 indicates a satisfactory degree of cure for overcoating purposes.

At relative humidities below 55%, curing will be retarded. Humidity may be increased by the use of steam or water spraying. However, cure at relative humidities below 55% is more effectively achieved by incorporating the Low Humidity Cure Accelerator*; some example overcoating times at 15°C (59°F) are detailed below;

Relative Humidity (%)	20	30	40
Minimum Overcoating Interval	24 hours	10 hours	10 hours

The Interzinc 22 Application Guidelines contain further information on expected cure times at lower relative humidities.

Excessive film thickness and/or over-application of Interzinc 22 can lead to mudcracking, which will require complete removal of the affected areas by abrasive blasting and re-application in accordance with the original specification.

Care should be exercised to avoid application of dry film thickness in excess of 125 microns (5 mils).

For high temperature systems the thickness of Interzinc 22 should be restricted to 50 microns (2 mils) d.f.t. Continuous dry temperature resistance of Interzinc 22 is 400°C (752°F) if left untopcoated, however, if this product is used as a primer for Intertherm 50, the dry temperature resistance will be 540°C (1004°F).

Untopcoated Interzinc 22 is not suitable for exposure in acid or alkaline conditions or continuous water immersion.

This product has the following specification approvals:

- AISC Specification 348-04 Research Council for Structural Connections Class B Coating
- UNE 48293 (Spain)

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

*Only available in Europe, China, Middle East, Africa and Russia.

SYSTEMS COMPATIBILITY

When it is necessary for Interzinc 22 to be overcoated by itself due to low dry film thickness, the coating surface must be fresh and unweathered. A minimum of 50 microns (2 mils) d.f.t of any subsequent coat of Interzinc 22 is needed to ensure good film formation.

Before overcoating with recommended topcoats ensure the Interzinc 22 is fully cured (see above) and if weathering has occurred all zinc salts should be removed from the surface by fresh water washing, and if necessary scrubbing with bristle brushes.

Typical topcoats and intermediates are:

Intercure 200	Intergard 475HS
Intercure 420	Intertherm 50
Intergard 251	Interseal 670HS
Intergard 269	Intertherm 715
Intergard 345	

In some cases it may be necessary to apply a mist coat of suitable viscosity to minimise bubbling. This will depend upon the age of the Interzinc 22, surface roughness and ambient conditions during curing and application. Alternatively, an epoxy sealer coat, such as Intergard 269, can be used to reduce bubbling problems.

For other suitable topcoats/intermediates, consult International Protective Coatings.

Inorganic Zinc Rich Silicate

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interzinc 22 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	13.78 litre	10.42 litre	15 litre	3.36 litre	20 litre
	4.92 US gal	3.72 US gal	5 US gal	1.2 US gal	3.5 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	13.78 litre	11.6 kg		25.8 kg	
	4.92 US gal	37.2 lb		73.6 lb	
STORAGE	Shelf Life	Part A 6 months minimum at 25°C (77°F). Part B 12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Zinc-Rich

PRODUCT DESCRIPTION

A two component, metallic zinc rich epoxy primer which complies with the composition and performance requirements of SSPC Paint 20.

INTENDED USES

As a high performance primer to give maximum protection as part of any anti-corrosive coating system for aggressive environments including those found on offshore structures, petrochemical facilities, pulp and paper plants, bridges and power plants.

Interzinc 52 has been designed to provide excellent corrosion resistance in both maintenance and new construction situations.

PRACTICAL INFORMATION FOR INTERZINC 52

Colour	Blue, Grey, Green
Gloss Level	Matt
Volume Solids	59%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 85-127 microns (3.4-5.1 mils) wet
Theoretical Coverage	7.90 m ² /litre at 75 microns d.f.t and stated volume solids 315 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	2 hours	10 hours	8 hours	Extended ¹
15°C (59°F)	90 minutes	6 hours	4 hours	Extended ¹
25°C (77°F)	75 minutes	4 hours	3 hours	Extended ¹
40°C (104°F)	45 minutes	2 hours	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

For curing at low temperatures an alternative curing agent is available. See Product Characteristics for details.

Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical) Part A 29°C (84°F); Part B 30°C (86°F); Mixed 29°C (84°F)

Product Weight 2.52 kg/l (21.0 lb/gal)

VOC 2.80 lb/gal (336 g/lit) EPA Method 24
152 g/kg EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Epoxy Zinc-Rich

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzinc 52, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-75 microns (1.6-3.0 mils) is recommended.

Shop Primed Steelwork

Interzinc 52 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be cleaned to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3. Optimum performance will be achieved with blasting to Sa2½ (ISO 8501-1:2007) or SSPC-SP6; where this is not practical, hand preparation to SSPC-SP11 is recommended.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 24 hours	15°C (59°F) 12 hours	25°C (77°F) 5 hours	40°C (104°F) 2 hours
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	E	
Brush	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Zinc-Rich

PRODUCT CHARACTERISTICS

In order to ensure good anti-corrosive performance, it is important to achieve a minimum dry film thickness of Interzinc 52 of 40 microns (1.5 mils). To achieve a uniform, coalesced, closed film at this dry film thickness, it will be necessary to thin Interzinc 52 10% with International thinners. The film thickness of Interzinc 52 applied must be compatible with the blast profile achieved during surface preparation. Low film thickness should not be applied over coarse blast profiles.

Care should be exercised to avoid the application of dry film thicknesses in excess of 150 microns (6 mils).

Care should be exercised to avoid over-application, which may result in cohesive film failure with subsequent high builds, and to avoid dry spray which can lead to pinholing of subsequent coats. Over-application will also result in slower curing and extended handling and overcoating times.

Over-application of Interzinc 52 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

When Interzinc 52 is allowed to weather before topcoating ensure all zinc salts are removed prior to paint application and only topcoat with recommended materials.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Interzinc 52 is not normally recommended for underwater use. Please consult International Protective Coatings for details in this situation.

Interzinc 52 is suitable for the localised repair of damaged inorganic zinc primer - consult International Protective Coatings for specific advice.

Low Temperature Curing

An alternative curing agent is available for applications at temperatures less than 5°C (41°F). When using this alternative curing agent it should be noted that the VOC will increase to 360 g/l (3 lb/gal).

Interzinc 52 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

Temperature	Touch Dry	Hard Dry	Minimum overcoating interval with recommended topcoats	
			<i>Minimum</i>	<i>Maximum</i>
-5°C (23°F)	6 hours	32 hours	36 hours	Extended*
0°C (32°F)	3 hours	16 hours	18 hours	Extended*
5°C (41°F)	2 hours	6 hours	6 hours	Extended*

Touch dry times shown above are actual drying times due to chemical cure, rather than physical set due to solidification of the coating film at temperatures below 0°C (32°F)

* See International Protective Coatings Definitions & Abbreviations

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

This product has the following specification approvals:

- Steel Structures Painting Council - SSPC Paint 20

On consultation with International Protective Coatings this product is compatible with alternative application methods such as flow coating.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interzinc 52 is designed for application to correctly prepared steel. However, it is also possible to apply over approved prefabrication primers. Further details of these can be obtained from International Protective Coatings.

Recommended topcoats are:

Intercure 200	InterH2O 401
Intercure 420	Interseal 670HS
Interfine 629HS	Interthane 990
Intergard 251	Interzone 1000
Intergard 269	Interzone 505
Intergard 475HS	Interzone 954
Intergard 740	

For other suitable topcoats, consult International Protective Coatings.

Epoxy Zinc-Rich

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	10 litre	8 litre	10 litre	2 litre	2.5 litre
	3 US gal	2.4 US gal	3.5 US gal	0.6 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	10 litre	24.5 kg		2.1 kg	
	3 US gal	63.3 lb		5.3 lb	
STORAGE	Shelf Life	6 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 22/05/2015

Copyright © AkzoNobel, 22/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Epoxy Zinc-Rich

PRODUCT DESCRIPTION

A two component, metallic zinc rich epoxy primer, designed to provide excellent corrosion resistance both as a single coat and as a primer for a high performance coating system. Contains 90% zinc by weight in the dry film.

INTENDED USES

As a factory or site applied primer, for use in high performance coating systems for the protection of steel in aggressive environments such as offshore structures, refineries, petrochemical and chemical plants, power stations, bridges and pulp and paper plants.

PRACTICAL INFORMATION FOR INTERZINC 72

Colour	Grey			
Gloss Level	Matt			
Volume Solids	60%			
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 83-125 microns (3.3-5 mils) wet			
Theoretical Coverage	8 m ² /litre at 75 microns d.f.t and stated volume solids 321 sq.ft/US gallon at 3 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	45 minutes	6 hours	8 hours	Extended ¹
15°C (59°F)	35 minutes	4 hours	6 hours	Extended ¹
25°C (77°F)	25 minutes	90 minutes	4 hours	Extended ¹
40°C (104°F)	20 minutes	45 minutes	2 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 32°C (90°F); Part B 33°C (91°F); Mixed 32°C (90°F)	
Product Weight	2.77 kg/l (23.1 lb/gal)	
VOC	149 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)
See Product Characteristics section for further details		

Epoxy Zinc-Rich

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzinc 72, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Shop Primed Steel

Interzinc 72 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4.0 part(s) : 1.0 part(s) by volume			
Working Pot Life	10°C (50°F) 12 hours	15°C (59°F) 10 hours	25°C (77°F) 8 hours	40°C (104°F) 5 hours
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Thinning may be required.	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E	
Brush	Suitable - small areas only	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Suitable - small areas only	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Thinner	International GTA220	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Epoxy Zinc-Rich

PRODUCT CHARACTERISTICS

In order to ensure good anti-corrosive performance, it is important to achieve a minimum system dry thickness of 40 microns (1,5 mils). To achieve a uniform film at this thickness thinning at around 10% with International thinners will be required.

When applying Interzinc 72 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Where Interzinc 72 is to be used as a primer for a coating system to be subjected to water immersion, it is important to ensure that a minimum dry film thickness of 65 microns (2,5 mils) is applied in order to provide adequate corrosion protection.

Over-application of Interzinc 72 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Excessive film thickness may lead to splitting of the film when overcoated with high build systems.

In the event of Interzinc 72 being allowed to weather before being topcoated, it is important to ensure that all zinc salts are removed prior to paint application, and recommended topcoats are applied.

Interzinc 72 is not suitable for exposure in acid or alkaline environments.

This product has the following specification approvals:

- BS5493 (1977) : DF & KP1B
- BS4652:1995
- British Gas Specification PA9 and PA10

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interzinc 72 can be overcoated with a wide range of high performance topcoats including:

Intercure 200	Intergard 411
Intercure 420	Intergard 475HS
Intercure 422	Interseal 670HS
Intergard 251	Intersheen 73
Intergard 269	Intertuf 708
Intergard 400	Interzone 505
Intergard 405	Interzone 954
Intergard 410	

For other suitable primers/topcoats consult International Protective Coatings.

Epoxy Zinc-Rich

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	10 litre	8 litre	10 litre	2 litre	2.5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg		kg	
	10 litre	27.3		2.1	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Rapid Recoat Epoxy Zinc Rich

PRODUCT DESCRIPTION

A two component high solids, low VOC metallic zinc-rich epoxy primer formulated on proprietary polymer technology which provides rapid cure and overcoating even under low temperature conditions.

Interzinc 315 uses zinc dust conforming to the requirements of ASTM D520 Type II as a minimum standard.

INTENDED USES

As a zinc-rich primer to form part of a coating system to provide corrosion protection for steel substrates, for use in a wide range of industrial situations including offshore, petrochemical and chemical plants, refineries, pulp and paper plants, and bridges.

The rapid curing and overcoating properties of Interzinc 315 provide production flexibility, making this product suitable for use both in new construction and on site as a maintenance coating.

PRACTICAL INFORMATION FOR INTERZINC 315

Colour	Blue, Grey
Gloss Level	Matt
Volume Solids	69%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 72-109 microns (2.9-4.4 mils) wet
Theoretical Coverage	13.80 m ² /litre at 50 microns d.f.t and stated volume solids 553 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	30 minutes	5 hours	4 hours	Extended ¹
15°C (59°F)	20 minutes	3 hours	3 hours	Extended ¹
25°C (77°F)	15 minutes	2 hours	2 hours	Extended ¹
40°C (104°F)	10 minutes	1 hour	1 hour	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical) Part A 27°C (81°F); Part B 26°C (79°F); Mixed 27°C (81°F)

Product Weight 3.16 kg/l (26.4 lb/gal)

VOC 2.79 lb/gal (335 g/l)
103 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Rapid Recoat Epoxy Zinc Rich

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Grit Blast Cleaning

Abrasive grit blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzinc 315, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

Shop Primed Steelwork

Interzinc 315 is suitable for application to steelwork freshly coated with zinc silicate shop primers.

If the shop primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to the application of Interzinc 315. If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall grit sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by grit abrasive blast cleaning.

Weld seams and damaged areas should be grit blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC SP6.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator.			
	(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
	For three pack material see product characteristics			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	6 hours	3 hours	2 hours	1 hour
Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 141 kg/cm ² (2005 p.s.i.)		
Air Spray (Pressure Pot)	Suitable - small areas only			
Brush	Suitable - small areas only	Typically 40-50 microns (1.6-2.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Rapid Recoat Epoxy Zinc Rich

PRODUCT CHARACTERISTICS

Due to the high solids level and high zinc content of this coating, in some countries it has become necessary to supply as a three pack material to meet local transport and shipping requirements. The mixed paints and dry films achieved from the two and three pack materials are identical in both application properties and performance.

The following is mixing information for the three pack material:-

Material is supplied in three containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the specified pot life.

- (1) Agitate Base (Part A), then combine the entire contents of Base (Part A) and Curing Agent (Part B) and mix thoroughly with power agitator.
- (2) The Powder Component (Part C) should be slowly added to the thoroughly mixed Part A and Part B whilst stirring with a power agitator.
- (3) Material should be sieved prior to application and should be constantly agitated in the pot during spraying.

Interzinc 315 can be applied at dry film thicknesses between 50 microns (2 mils) and 150 microns (6 mils). Care should be exercised to avoid over application in excess of 150 microns (6 mils).

Care should be exercised to avoid over-application, which may result in cohesive film failure with subsequent high builds, and to avoid dry spray which can lead to pinholing of subsequent coats. Over-application will also result in slower curing and extended handling and overcoating times.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

Interzinc 315 is not normally recommended for underwater use. Please consult International Protective Coatings for details in this situation.

Low Temperature Curing

Interzinc 315 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product has the following specification approvals:

- SSPC Paint Specification No. 20, Type II
- BS5493 (1977) : DF & KP1B
- BS4652:1995
- ASTM A490 Class B Slip Coefficient

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interzinc 315 is designed for use over correctly prepared grit blasted steel but can be applied over approved prefabrication primers.

Recommended topcoats are:

Intercure 200	Intergard 740
Intercure 200HS	Interseal 670HS
Intercure 420	Interthane 870
Interfine 629HS	Interthane 990
Interfine 979	Interzone 505
Intergard 475HS	Interzone 954

For other suitable primers/topcoats, consult International Protective Coatings.

Rapid Recoat Epoxy Zinc Rich

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B		Part C	
		Vol	Pack	Vol	Pack	Vol	Pack
	10 litre	8 litre	10 litre	2 litre	2.5 litre	-	-
	4 US gal	1.77 US gal	5 US gal	0.8 US gal	1 US gal	1.43 US gal	3 US gal
For availability of other pack sizes, contact International Protective Coatings.							
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B		Part C	
	10 litre	31.4 kg		2.2 kg		0 kg	
	4 US gal	24.2 lb		5.5 lb		88.4 lb	
STORAGE	Shelf Life	6 months minimum at 25°C. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.					

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Inorganic Zinc Rich Silicate

PRODUCT DESCRIPTION

Part of the Interzinc 22 series of products.

A two component, rapid recoat, fast curing solvent based inorganic zinc rich ethyl silicate primer. Conforms to SSPC Paint 20 Level 2 requirements.

Available in ASTM D520, Type II zinc dust version as standard

INTENDED USES

A zinc rich primer suitable for use with a wide range of high performance systems and topcoats in both maintenance and new construction of bridges, tanks, pipework, offshore structures and structural steelwork.

Provides excellent corrosion protection for correctly prepared steel substrates, up to temperatures of 540°C (1004°F) when suitably topcoated.

Fast drying primer capable of application in a wide range of climatic conditions.

PRACTICAL INFORMATION FOR INTERZINC 2280

Colour	Green Grey
Gloss Level	Matt
Volume Solids	65%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 77-115 microns (3.1-4.6 mils) wet
Theoretical Coverage	8.70 m ² /litre at 75 microns d.f.t and stated volume solids 348 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	30 minutes	3 hours	18 hours	Extended ¹
15°C (59°F)	20 minutes	1.5 hours	9 hours	Extended ¹
25°C (77°F)	10 minutes	1 hour	4.5 hours	Extended ¹
40°C (104°F)	5 minutes	30 minutes	1.5 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

The drying times quoted have been determined at the quoted temperature and 55% relative humidity. The 5°C (41°F) time was determined at 60% relative humidity. Prior to overcoating, verify a value of 4 via ASTM D4752 MEK rub test. See Product Characteristics section for more details on overcoating.

REGULATORY DATA

Flash Point (Typical)	Part A 13°C (55°F); Mixed 13°C (55°F)	
Product Weight	2.4 kg/l (20.0 lb/gal)	
VOC	3.83 lb/gal (460 g/lit)	EPA Method 24
	221 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Inorganic Zinc Rich Silicate

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to application all surfaces should be assessed and treated in accordance with ISO 8504:2000

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 (or SSPC-SP10 for optimum performance). If oxidation has occurred between blasting and application of Interzinc 2280, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 40-75 microns (1.5-3.0 mils) is recommended.

Shop Primed Steelwork

Interzinc 2280 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers.

If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Damaged / Repair Areas

All damaged areas should ideally be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. However, it is acceptable that small areas can be power tool cleaned to Pt3 (JSRA SPSS:1984) or SSPC-SP11, provided the area is not polished. Repair of the damaged area can then be carried out using a recommended zinc epoxy primer - consult International Protective Coatings for specific advice.

APPLICATION

Mixing	Interzinc 2280 is supplied in two parts, a liquid Binder base component (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) whilst stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.			
Mix Ratio	3.55 part(s) : 1 part(s) by volume			
Working Pot Life	5°C (41°F) 12 hours	15°C (59°F) 8 hours	25°C (77°F) 4 hours	40°C (104°F) 2 hours
Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 112 kg/cm ² (1593 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA Air Cap 704 or 765 Fluid Tip E	
Brush	Suitable - small areas only	Typically 25-50 microns (1.0-2.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA803 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA803 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA803. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA803. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

Inorganic Zinc Rich Silicate

PRODUCT CHARACTERISTICS

Prior to overcoating, Interzinc 2280 must be clean, dry and free from both soluble salts and excessive zinc corrosion products.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

When applying Interzinc 2280 in confined spaces ensure adequate ventilation.

If thinning is required to assist spray application in warmer climates, (typically >28°C (82°F)), it is recommended that International GTA803 thinners are used

It is recommended that prior to overcoating a solvent rub test to ASTM D4752 should be undertaken. A value of 4 indicates a satisfactory degree of cure for overcoating purposes.

At relative humidities below 55%, curing will be retarded. Humidity may be increased by the use of steam or water spraying. However, cure at relative humidities below 55% is more effectively achieved by incorporating the Low Humidity Cure Accelerator*; some example overcoating times at 15°C (59°F) are detailed below;

Relative Humidity (%)	20	30	40
Minimum Overcoating Interval	24 hours	10 hours	10 hours

The Interzinc 2280 Application Guidelines contain further information on expected cure times at lower relative humidities.

Excessive film thickness and/or over-application of Interzinc 2280 can lead to mudcracking, which will require complete removal of the affected areas by abrasive blasting and re-application in accordance with the original specification.

Care should be exercised to avoid application of dry film thickness in excess of 125 microns (5 mils).

For high temperature systems the thickness of Interzinc 2280 should be restricted to 50 microns (2 mils) d.f.t. Continuous dry temperature resistance of Interzinc 2280 is 400°C (752°F) if left untopcoated, however, if this product is used as a primer for Intertherm 50, the dry temperature resistance will be 540°C (1004°F).

Untopcoated Interzinc 2280 is not suitable for exposure in acid or alkaline conditions or continuous water immersion.

This product has the following specification approvals:
ASTM A490 Class B Slip Coefficient

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

*Only available in Europe, China, Middle East, Africa and Russia.

SYSTEMS COMPATIBILITY

When it is necessary for Interzinc 2280 to be overcoated by itself due to low dry film thickness, the coating surface must be fresh and unweathered. A minimum of 50 microns (2 mils) d.f.t of any subsequent coat of Interzinc 2280 is needed to ensure good film formation.

Before overcoating with recommended topcoats ensure the Interzinc 2280 is fully cured (see above) and if weathering has occurred all zinc salts should be removed from the surface by fresh water washing, and if necessary scrubbing with bristle brushes.

Typical topcoats and intermediates are:

Intercure 200	Intergard 475HS
Intercure 420	Interseal 670HS
Intergard 251	Intergard 269
Intertherm 50	Interplus 356

In some cases it may be necessary to apply a mist coat of suitable viscosity to minimise bubbling. This will depend upon the age of the Interzinc 2280, surface roughness and ambient conditions during curing and application. Alternatively, an epoxy sealer coat, such as Intergard 269, can be used to reduce bubbling problems.

For other suitable topcoats/intermediates consult International Protective Coatings

Inorganic Zinc Rich Silicate

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interzinc 2280 Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15.3 litre	11.93 litre	15 litre	3.36 litre	20 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		kg		kg	
	15.3 litre	14.5 kg		25.6 kg	
STORAGE	Shelf Life	Part A: 6 months minimum at 25°C (77°F). Part B: 12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Ultra High Build Epoxy

PRODUCT DESCRIPTION

An ultra high build, high volume solids, two component catalysed epoxy, capable of being applied up to 3000 microns (120 mils) dry film thickness, and providing excellent impact resistance, abrasion resistance and adhesion properties.

Suitable for Application using standard airless spray equipment, economical to apply.

Excellent resistance to alkalis, chemicals and petroleum products.

INTENDED USES

As a coating for the protection of steelwork in severe environments where high abrasion and corrosion resistance are required including splashzone areas on offshore oil and gas platforms, wharf piles, ship loading facilities, jetties, decks, bridges, chemical plants, pulp and paper mills, and water treatment plants.

Particularly suitable when used in conjunction with appropriate aggregate to provide a tough, durable non-slip deck system. Interzone 485 is ideally suited for use on heliports, work areas and walkways on offshore structures.

Excellent resistance to cathodic disbondment, gives good compatibility with both sacrificial anode and impressed current systems. Interzone 485 is particularly suitable for the long term protection of sub-sea structures, or as a shop or field applied coating for hot, cathodically protected oil or gas pipelines.

As a tank lining for abrasive slurry e.g. CIL/CIP tanks in the gold mining industry.

PRACTICAL INFORMATION FOR INTERZONE 485

Colour	Limited range
Gloss Level	Semi Gloss
Volume Solids	99%
Typical Thickness	1000-3000 microns (40-120 mils) dry equivalent to 1010-3030 microns (40.4-121.2 mils) wet
Theoretical Coverage	1 m ² /litre at 1000 microns d.f.t and stated volume solids 40 sq.ft/US gallon at 40 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	14 hours	72 hours	72 hours	4 days ¹
15°C (59°F)	8 hours	36 hours	36 hours	3 days ¹
25°C (77°F)	4 hours	24 hours	24 hours	3 days ¹
40°C (104°F)	2 hours	12 hours	12 hours	1 day ¹

¹ Overcoating intervals are longer when overcoating Interzone 485 with self. Please contact International Protective Coatings for further details

REGULATORY DATA

Flash Point (Typical) Part A 32°C (90°F); Part B 65°C (149°F); Mixed 63°C (145°F)

Product Weight 1.10 kg/l (9.2 lb/gal)

VOC 0.25 lb/gal (30 g/lt) EPA Method 24
38 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Ultra High Build Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

For immersion service, Interzone 485 must be applied to surfaces blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. However, for atmospheric exposure Interzone 485 may be applied to surfaces prepared to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Surface profile must be a minimum of 50 microns (2 mils).

Interzone 485 can be applied over Interline 982. The primer surface should be dry and free from all contamination and Interzone 485 must be applied within the overcoating intervals specified (consult the relevant product datasheet).

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	<ul style="list-style-type: none"> (1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator. 			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 1 hour	15°C (59°F) 1 hour	25°C (77°F) 45 minutes	40°C (104°F) 30 minutes
Airless Spray	Recommended	Tip Size 0.76 mm (30 thou) Total output fluid pressure at spray tip not less than 282 kg/cm ² (4010 p.s.i.)		
Air Spray (Pressure Pot)	Not suitable			
Brush	Suitable	For areas less than 0.1m ² brush application is possible. Multiple coats and thinning up to 3% maybe required.		
Roller	Not suitable			
Thinner	International GTA203 (Thin up to 3%)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA853 or International GTA203			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853 (or GTA203). Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA853 (or GTA203). It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Ultra High Build Epoxy

PRODUCT CHARACTERISTICS

Interzone 485 is suitable for use with cathodic protection with or without the recommended primer.

For specific chemical resistance contact International Protective Coatings.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

In high impact and abrasion applications do not use primer and apply over a minimum surface profile height of 75 microns (3 mils).

At high film thickness, >2000 microns (80 mils) apply in two coats to minimise rough surface texture and indentations.

Care should be taken to avoid over application of any priming system used under Interzone 485. Excessive primer film thickness could lead to splitting of the film when overcoated with Interzone 485.

At temperatures below 20°C (68°F) larger pumps and tip sizes may be required to achieve atomisation. Care must be taken not to over atomise the product as this will result in a rough surface texture and indentations.

Optimum application conditions are as follows;

Apply using a minimum airless spray pump of 45:1 ratio, for best results a 64:1 ratio is preferred.

Storage must be between 20-30°C (68-86°F) to ensure suitable application viscosity.

Remove all line filters.

Thoroughly blend both components together as specified and thin up to 3% with International thinner GTA203.

Do not use excessive air pressure. Adjust fluid pressure and tip size to achieve suitable atomisation.

Fluid line should have a diameter no less than ½ inch (13 mm) with a 3/8 inch (9 mm) diameter whip end no longer than 5 metres (16.4 ft).

Interzone 485 can be utilised as a non-skid deck system by modification with suitable aggregate. Consult International Protective Coatings for further details.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

The following primers are recommended for Interzone 485:

Interline 982

For other suitable primers, consult International Protective Coatings.

The following topcoats are recommended for Interzone 485:

Interfine 629HS
Intergard 740
Interthane 870
Interthane 990
Interthane 990HS
Interzone 485

For other suitable topcoats, consult International Protective Coatings.

Ultra High Build Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	4 litre
	5 US gal	3 US gal	5 US gal	0.75 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	19.5 kg		4.5 kg	
	5 US gal	31.5 lb		9 lb	
STORAGE	Shelf Life	24 months minimum at 25°C. Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Glass Flake Epoxy

PRODUCT DESCRIPTION A high solids, low VOC, high build epoxy primer/intermediate or finish coat, reinforced with chemically resistant high aspect ratio glass flake for enhanced durability and corrosion resistance.

INTENDED USES For the protection of steelwork in all corrosive environments including splashzone areas on offshore structures, underdeck, decks and above water areas, pilings, pulp and paper mills, bridges and chemical plants.

To provide excellent long term, anti-corrosive and anti-abrasion protection in both new construction and maintenance situations.

As part of a non-slip deck system in conjunction with appropriate aggregate.

PRACTICAL INFORMATION FOR INTERZONE 505

Colour	Limited range
Gloss Level	Semi Gloss
Volume Solids	90%
Typical Thickness	300-500 microns (12-20 mils) dry equivalent to 333-556 microns (13.3-22.2 mils) wet
Theoretical Coverage	2.25 m ² /litre at 400 microns d.f.t and stated volume solids 90 sq.ft/US gallon at 16 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
5°C (41°F)	20 hours	28 hours	28 hours	7 days ¹
15°C (59°F)	6 hours	14 hours	14 hours	5 days ¹
25°C (77°F)	3 hours	6 hours	6 hours	4 days ¹

¹ Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

For curing at elevated temperatures an alternative curing agent is available. Contact International Protective Coatings for more information.

REGULATORY DATA **Flash Point (Typical)** Part A 54°C (129°F); Part B 33°C (91°F); Mixed 35°C (95°F)

Product Weight 1.29 kg/l (10.8 lb/gal)

VOC 1.71 lb/gal (205 g/l) 164 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Glass Flake Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzone 505, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting Standards) or Grade SB2½M (refer to International Slurry Blasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.	
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.	
Mix Ratio	1.5 part(s) : 1 part(s) by volume	
Working Pot Life	5°C (41°F) 2.5 hours	15°C (59°F) 25°C (77°F) 90 minutes 60 minutes
Airless Spray	Recommended	Tip Range 0.53-0.79 mm (21-31 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 62 Fluid Tip AC
Brush	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved
Roller	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation
Cleaner	International GTA822 (or International GTA415)	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.	
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

Glass Flake Epoxy

PRODUCT CHARACTERISTICS

Interzone 505 is suitable for both water immersion and exterior exposure. For water immersion a minimum system thickness of 450 microns (18 mils) is required to achieve long term anti-corrosive performance. For general exterior exposure in aggressive conditions a minimum system thickness of 350 microns (14 mils) is required.

If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of Interzone 505. With freshly blasted surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

For airless spray application best results will be achieved by using 9 mm (3/8") lines with no whip ends. The pump should be a minimum of 45:1 ratio. Filters should be removed from the spray machine and gun, and fluid lines kept as short as possible.

Higher ratio pumps are recommended when long fluid lines are used.

When applying Interzone 505 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

In special cases where overcoating is required and curing has been at low temperatures and high relative humidities, ensure no amine bloom is present prior to application of subsequent topcoats.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F). Surface temperature must always be a minimum of 3°C above dew point.

When applying Interzone 505 in confined spaces ensure adequate ventilation.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film. Premature exposure to ponding water will cause a colour change, especially in dark colours.

Films of Interzone 505 cured at an ambient temperature of 25°C (77°F) or greater, will be suitable for immersion in water after 24 hours.

Curing is retarded underwater. Some colour change may be observed.

For curing at elevated temperatures an alternative curing agent is available. Contact International Protective Coatings for more information.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

Interchanging standard and elevated temperature curing agents during application to a specific structure will give rise to an observable colour change due to the difference in the yellowing/discolouration process common to all epoxies on exposure to UV light.

In common with all epoxies Interzone 505 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Interzone 505 can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interzone 505 is compatible with sacrificial and impressed current cathodic protection systems.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interzone 505 can be applied directly to blasted steel but can also be used over the following primers for underwater systems:

Intergard 269 Interline 982

When used in aggressive exterior exposure environments the following primers are recommended for Interzone 505:

Intercure 200 Interzinc 52
Intergard 251 Interzinc 315
Interzinc 22 (mist coat or tie coat may be required)*

The following topcoats are recommended for Interzone 505:

Interfine 629HS
Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

See relevant product data sheet for details.

Glass Flake Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	10.5 litre	20 litre	7 litre	10 litre
	5 US gal	3 US gal	5 US gal	2 US gal	2 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	16.75 kg		8.76 kg	
	5 US gal	33.9 lb		18.3 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 22/05/2015

Copyright © AkzoNobel, 22/05/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Epoxy

PRODUCT DESCRIPTION

A two component, low VOC, high solids, modified epoxy barrier coat designed to give long term protection in a single coat application. Will continue to cure when immersed in water and has excellent cathodic disbondment resistance.

INTENDED USES

Primarily designed for use in offshore splashzone maintenance, where its continued cure under immersed conditions makes it ideal for coping with tidal movements and surges. May be applied to reoxidised and slightly damp surfaces. Interzone 954 has also found extensive use in a number of other corrosive environments including pulp and paper plants, chemical plants, jetties and sluice gates.

As part of a non-slip deck system in conjunction with appropriate aggregate.

PRACTICAL INFORMATION FOR INTERZONE 954

Colour	Range available via the Chromascan system			
Gloss Level	Gloss			
Volume Solids	85% ± 3% (depends on colour)			
Typical Thickness	250-500 microns (10-20 mils) dry equivalent to 294-588 microns (11.8-23.5 mils) wet			
Theoretical Coverage	1.70 m ² /litre at 500 microns d.f.t and stated volume solids 68 sq.ft/US gallon at 20 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush, Roller			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	14 hours	24 hours	24 hours	14 days ¹
15°C (59°F)	10 hours	18 hours	18 hours	10 days ¹
25°C (77°F)	4 hours	8 hours	8 hours	7 days ¹
40°C (104°F)	90 minutes	3 hours	3 hours	5 days ¹

¹ Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical)	Part A 30°C (86°F); Part B 44°C (111°F); Mixed 33°C (91°F)		
Product Weight	1.62 kg/l (13.5 lb/gal)		
VOC	1.87 lb/gal (225 g/l) 151 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Modified Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzone 954, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3 for atmospheric use only.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2 (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2M (refer to International Hydroblasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interzone 954 is suitable for overcoating some sound intact aged coatings. To ensure compatibility, application and evaluation of a test patch is required.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1)	Agitate Base (Part A) with a power agitator.		
	(2)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	3 hours	2 hours	90 minutes	45 minutes
	Note: Pot life will be reduced if alternative curing agent EAA984 is used. See Product Characteristics for further details.			
Airless Spray	Recommended	Tip Range 0.53-0.66 mm (21-26 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	62	
		Fluid Tip	AC	
Brush	Suitable	Typically 100-150 microns (4.0-6.0 mils) can be achieved		
Roller	Suitable	Typically 75-125 microns (3.0-5.0 mils) can be achieved		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Modified Epoxy

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Interzone 954 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Do not apply at steel temperatures below 4°C (39°F).

When applying Interzone 954 in confined spaces ensure adequate ventilation.

In special cases where overcoating is required and curing has been at low temperatures and high relative humidities, ensure no amine bloom is present prior to application of subsequent topcoats.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

In common with all epoxies Interzone 954 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

When applied between tides on jetties, piling etc., Interzone 954 can be immersed within 30 minutes. This will lead to whitening of dark colours but will not affect ultimate anti-corrosive performance.

For use in atmospheric service a minimum dry film thickness of 350 microns (14 mils) is required in one coat when applied direct to steel, for water immersion a minimum of 450 microns (18 mils) dry film thickness is recommended. In each case protection can be achieved in a single coat application by airless spray.

Interzone 954 may be applied to suitably sealed or primed concrete; contact International Protective Coatings for further advice on specification and primers.

Interzone 954 can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interzone 954 is compatible with sacrificial and impressed current cathodic protection systems.

Alternative Curing Agent (EAA984)

Drying and overcoating information is as on page 1. Pot life times are as follows:

Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
	2 hours	1 hour	45 minutes	20 minutes

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interzone 954 will generally be applied to bare steel prepared by dry abrasive blasting, wet abrasive blasting or ultra high pressure hydroblasting.

The following primers are recommended for Interzone 954:

Intercure 200	Intergard 269 (for underwater use)
Intercure 200HS	Interline 982 (for underwater use)
Intergard 251	
Interzinc 315	
Interzinc 52	
Interzone 1000	

The following topcoats are recommended for Interzone 954:

Interfine 629HS	Intersleek 167
Interfine 878	Interthane 870
Interfine 979	Interthane 990
Intergard 740	Interzone 954

For other suitable primers/topcoats, consult International Protective Coatings.

Modified Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	16 litre	20 litre	4 litre	5 litre
	5 US gal	4 US gal	5 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	30.4 kg		4.6 kg	
	5 US gal	56.4 lb		11.5 lb	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Epoxy

PRODUCT DESCRIPTION

A two component, low VOC, high solids, modified epoxy barrier coating specifically designed to provide long term steel protection via brush or roller application techniques. Will continue to cure when immersed in water and has excellent cathodic disbondment resistance.

INTENDED USES

Primarily designed for use in offshore splashzone maintenance, where its continued cure under immersed conditions makes it ideal for coping with tidal movements and surges. May be applied to reoxidised and slightly damp surfaces.

Interzone 954BG is intended for use in those instances where the performance of Interzone 954 is required but spray application is not possible.

PRACTICAL INFORMATION FOR INTERZONE 954BG

Colour	Limited range
Gloss Level	Gloss
Volume Solids	87%
Typical Thickness	200-300 microns (8-12 mils) dry equivalent to 230-345 microns (9.2-13.8 mils) wet
Theoretical Coverage	4.40 m ² /litre at 200 microns d.f.t and stated volume solids 174 sq.ft/US gallon at 8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	14 hours	24 hours	24 hours	14 days
15°C (59°F)	10 hours	18 hours	18 hours	10 days
25°C (77°F)	4 hours	8 hours	8 hours	7 days
40°C (104°F)	90 minutes	3 hours	3 hours	5 days

REGULATORY DATA

Flash Point (Typical)	Part A 32°C (90°F); Part B >101°C (214°F); Mixed 32°C (90°F)		
Product Weight	1.70 kg/l (14.2 lb/gal)	(depending on colour)	
VOC	122 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
See Product Characteristics section for further details			

Modified Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzone 954BG, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 50-75 microns (2-3 mils) is recommended.

Hand or Power Tool Preparation

Hand or power tool clean to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3 for atmospheric use only.

Note, all scale must be removed and areas which cannot be prepared adequately by chipping or needle gun should be spot blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2 (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2M (refer to International Hydroblasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

Aged Coatings

Interzone 954BG is suitable for overcoating some sound intact aged coatings. To ensure compatibility, application and evaluation of a test patch is required.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
Mix Ratio	4 part(s) : 1 part(s) by volume			
Working Pot Life	10°C (50°F) 3 hours	15°C (59°F) 2 hours	25°C (77°F) 90 minutes	40°C (104°F) 45 minutes
Airless Spray	Not suitable			
Air Spray (Pressure Pot)	Not suitable			
Air Spray (Conventional)	Not suitable			
Brush	Recommended	Typically 200-300 microns (8.0-12.0 mils) can be achieved.		
Roller	Recommended	Typically 150-200 microns (6.0-8.0 mils) can be achieved.		
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation.		
Cleaner	International GTA822 (or International GTA415)			
Work Stoppages	Not applicable			
Clean Up	Clean all equipment immediately after use with International GTA822.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Modified Epoxy

PRODUCT CHARACTERISTICS

When applying Interzone 954BG by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Do not apply at steel temperatures below 4°C (39°F).

When applying Interzone 954BG in confined spaces ensure adequate ventilation.

In special cases where overcoating is required and curing has been at low temperatures and high relative humidities, ensure no amine bloom is present prior to application of subsequent topcoats.

Condensation occurring during or immediately after application may result in a matt finish and/or colour change.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

In common with all epoxies Interzone 954BG will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

When applied between tides on jetties, piling etc., Interzone 954BG can typically be immersed after 30 minutes. This will lead to whitening of dark colours but will not affect ultimate anti-corrosive performance.

For use in atmospheric service a minimum dry film thickness of 350 microns (14 mils) is required in multiple coats when applied direct to steel, for water immersion a minimum of 450 microns (18 mils) dry film thickness is recommended.

Interzone 954BG is compatible with sacrificial and impressed current cathodic protection systems.

Interzone 954BG has an identical dry film composition to Interzone 954 and will provide equivalent performance at equivalent dry film thicknesses.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interzone 954BG will generally be applied to bare steel prepared by dry abrasive blasting, wet abrasive blasting or ultra high pressure hydroblasting.

The following primers are recommended for Interzone 954BG:

Intercure 200	Interzinc 12 (mist or tie coat recommended)*
Intercure 200HS	Interzinc 22 (mist or tie coat recommended)*
Intergard 251	Interzinc 42
Intergard 269 (for underwater use)	Interzinc 52
Interline 982 (for underwater use)	Interzone 1000

The following topcoats are recommended for Interzone 954BG:

Interfine 629HS	Intergard 740
Interfine 691	Intersleek 167
Interfine 878	Interthane 870
Interfine 979	Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

See relevant product data sheet for details.

Modified Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	5 litre	4 litre	5 litre	1 litre	1 litre

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
		7.7 kg	2.1 kg
	5 litre		

STORAGE	Shelf Life	
		12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 24/08/2015

Copyright © AkzoNobel, 24/08/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Glass Flake Epoxy

PRODUCT DESCRIPTION

A very high solids, low VOC, two component high build epoxy containing a high level of chemically resistant glass flake which imparts properties of excellent corrosion, abrasion and chemical resistance.

INTENDED USES

For the protection of steelwork in areas where high abrasion and corrosion resistance are required including splashzone areas on offshore platforms, jetties, decks, bridges, chemical plants, pulp and paper mills, and water treatment plants.

Excellent resistance to cathodic disbondment, gives good compatibility with both sacrificial anode and impressed current systems, making Interzone 1000 particularly suitable for the long term protection of sub-sea structures.

As part of a non-slip deck system in conjunction with appropriate aggregate.

PRACTICAL INFORMATION FOR INTERZONE 1000

Colour	Limited colour range available			
Gloss Level	Not applicable			
Volume Solids	92%			
Typical Thickness	500-1000 microns (20-40 mils) dry equivalent to 543-1087 microns (21.7-43.5 mils) wet			
Theoretical Coverage	1.80 m ² /litre at 500 microns d.f.t and stated volume solids 74 sq.ft/US gallon at 20 mils d.f.t and stated volume solids			
Practical Coverage	Allow appropriate loss factors			
Method of Application	Airless Spray, Air Spray, Brush			
Drying Time	Overcoating Interval with recommended topcoats			
Temperature	Touch Dry	Hard Dry	<i>Minimum</i>	<i>Maximum</i>
10°C (50°F)	14 hours	26 hours	26 hours	7 days
15°C (59°F)	8 hours	18 hours	18 hours	5 days
25°C (77°F)	5 hours	12 hours	12 hours	4 days
40°C (104°F)	2 hours	5 hours	5 hours	1 day

REGULATORY DATA

Flash Point (Typical) Part A 44°C (111°F); Part B >101°C (214°F); Mixed 56°C (133°F)

Product Weight 1.3 kg/l (10.8 lb/gal)

VOC 0.62 lb/gal (75 g/l)
70 g/kg
EPA Method 24
EU Solvent Emissions Directive
(Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

Glass Flake Epoxy

SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Interzone 1000, the surface should be reblasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 75-100 microns (3-4 mils) is recommended.

Primed Steelwork

Interzone 1000 can be applied over approved anti-corrosive primers. The primer surface should be dry and free from all contamination and Interzone 1000 must be applied within the overcoating intervals specified (consult the relevant product data sheet).

Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007) or SSPC-SP10 Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Interzone 1000

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.			
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.			
	Avoid mixing for prolonged periods as heat generated will significantly reduce pot life.			
Mix Ratio	3.5 part(s) : 1.0 part(s) by volume			
Working Pot Life	10°C (50°F) 4 hours	15°C (59°F) 3 hours	25°C (77°F) 1 hour	40°C (104°F) 30 minutes
Airless Spray	Recommended	Tip Range 0.92-1.09 mm (36-43 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.)		
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 62 AC	
Brush	Suitable - Small touch-up areas only	Typically 100-200 microns (4.0-8.0 mils) can be achieved		
Roller	Not recommended			
Thinner	International GTA220 (or International GTA415)	Do not thin more than allowed by local environmental legislation		
Cleaner	International GTA822 or International GTA415			
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.			
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.			
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.			

Glass Flake Epoxy

PRODUCT CHARACTERISTICS

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

The high level of glass flake in this coating prevents satisfactory application at a total system dry film thickness of less than 400 microns (16 mils). Maximum performance in extreme environments will be achieved by application of two coats at 500-750 microns (20- 30 mils) per coat followed by full inspection by spark testing.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

This product will not cure adequately below 5°C (41°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Over-application of Interzone 1000 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Curing is retarded underwater. Some colour change may be observed.

In common with all epoxies Interzone 1000 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance. In this instance due to the high level of lamellar glass flake, chalking is retarded after removal of the thin surface epoxy layer.

Absolute measured adhesion of topcoats to aged Interzone 1000 is less than that to fresh material, however, it is adequate for the specified end use.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats. However, cosmetic topcoats will not have the same degree of abrasion resistance provided by Interzone 1000.

Interzone 1000 can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interzone 1000 is compatible with sacrificial and impressed current cathodic protection systems.

A modified version of Interzone 1000 is available for use in cold climates in order to provide improved workability. Consult International Protective Coatings for further details.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to colour differences and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Interzone 1000 will normally be applied directly to correctly prepared steel, however, the following primers are recommended:

Intergard 269
Interline 982

The following topcoats are recommended for Interzone 1000:

Interfine 629HS
Intergard 740
Interthane 990
Interzone 954

For other suitable primers/topcoats, consult International Protective Coatings.

Glass Flake Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	18 litre	14 litre	20 litre	4 litre	5 litre
	4 US gal	3.1 US gal	5 US gal	0.9 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	18 litre	22.2 kg		4.28 kg	
	4 US gal	42.3 lb		7.9 lb	
U.N. Shipping No. UN 1263 (Base) : UN 1760 (Curing Agent)					
STORAGE	Shelf Life	18 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Issue date: 05/02/2015

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Modified Epoxy

PRODUCT DESCRIPTION

A high performance, two component, high solids epoxy barrier coating suitable for low temperature curing.

INTENDED USES

Primarily designed for use as a two coat coating system for the protection of subsea structures. Approved for NORSOK M501 Rev 5 system 7 subsea.

PRACTICAL INFORMATION FOR INTERZONE 3507

Colour	Limited range
Gloss Level	Semi Gloss
Volume Solids	80%
Typical Thickness	150-200 microns (6-8 mils) dry equivalent to 188-250 microns (7.5-10 mils) wet
Theoretical Coverage	4.60 m ² /litre at 175 microns d.f.t and stated volume solids 183 sq.ft/US gallon at 7 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	4 hours	8 hours	8 hours	21 days
15°C (59°F)	2 hours	6 hours	6 hours	21 days
25°C (77°F)	90 minutes	3.5 hours	3.5 hours	21 days
40°C (104°F)	60 minutes	2 hours	2 hours	21 days

REGULATORY DATA

Flash Point (Typical)	Part A 31°C (88°F); Part B 32°C (90°F); Mixed 32°C (90°F)		
Product Weight	1.57 kg/l (13.1 lb/gal)		
VOC	157 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details

Modified Epoxy

SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Interzone 3507, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

APPLICATION

Mixing	Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.		
	(1) Agitate Base (Part A) with a power agitator. (2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
Mix Ratio	3 part(s) : 1 part(s) by volume		
Working Pot Life	10°C (50°F)	15°C (59°F)	25°C (77°F) 40°C (104°F)
	3 hours	2 hours	60 minutes 30 minutes
Airless Spray	Recommended	Tip Range 0.45-0.66 mm (18-26 thou) Total output fluid pressure at spray tip not less than 176 kg/cm ² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA
		Air Cap	62
		Fluid Tip	AC
Brush	Suitable	Typically 80 microns (3.2 mils) can be achieved	
Roller	Suitable	Typically 80 microns (3.2 mils) can be achieved	
Thinner	International GTA220 (or GTA415)	DO NOT thin more than allowed by local environmental legislation.	
Cleaner	International GTA822 (or GTA415)		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.		
Clean Up	Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.		
	All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.		

Modified Epoxy

PRODUCT CHARACTERISTICS

When applying Interzone 3507 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In cases where overcoating is required and curing has been at low temperatures and high relative humidities, ensure no amine bloom is present prior to application of subsequent topcoats.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

Premature exposure to ponding water will cause a colour change, especially in dark colours.

In common with all epoxies Interzone 3507 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in colour and normal manufacturing tolerances.

SYSTEMS COMPATIBILITY

Interzone 3507 will generally be applied to bare steel prepared by dry abrasive blasting.

The following primers are recommended for Interzone 3507:

Interzinc 52

The following topcoats are recommended for Interzone 3507:

Intergard 740

Interthane 990

For other suitable primers/topcoats consult International Protective Coatings.

Modified Epoxy

ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	15 litre	20 litre	5 litre	5 litre
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 litre	24.7 kg		5.45 kg	
STORAGE	Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Important Note

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

Copyright © AkzoNobel, 05/02/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com

Product	S.G.	Flash Point		Product Description
		°C	°F	
GMA100	N/A	N/A	N/A	Non-slip aggregate.
GMA130	N/A	N/A	N/A	Non-slip aggregate.
GMA131	N/A	N/A	N/A	Non-slip aggregate.
GMA132	N/A	N/A	N/A	Non-slip aggregate.
GMA197	N/A	N/A	N/A	Non-slip aggregate.
GMA904	N/A	N/A	N/A	Conventional paint and varnish remover.
GMA990	0.88	23	73	An accelerator thinner for two component polyurethane coatings in EMEAR.
GPA900	N/A	N/A	N/A	Non-slip aggregate.
GTA004	0.78	38	100	A thinner and equipment cleaner for use with a wide range of conventional products.
GTA007	0.86	26	79	A thinner and equipment cleaner for use with a wide range of conventional products.
GTA056	0.81	39	102	A thinner and equipment cleaner for use with certain Intershield and Interthane products in North America.
GTA065	0.91	31	88	A reactive thinner for use with certain polyester products.
GTA075	0.84	3	37	A thinner for use with certain epoxy shop primers in South America.
GTA123	0.98	42	108	A thinner and equipment cleaner for Chartek products.
GTA137	0.83	1	34	A thinner and equipment cleaner for use with certain epoxy/urethane and polyurethane products in South America.
GTA138	0.92	32	90	A thinner and equipment cleaner for use with certain Interzinc zinc silicate products.
GTA203	0.81	-4	25	A thinner and equipment cleaner for use with certain Interzone products.
GTA220	0.85	25	77	A thinner and equipment cleaner for use with a wide range of epoxy products.
GTA313	0.94	34	93	A thinner and equipment cleaner for use with polyurethane finishes.
GTA407	0.85	19	66	A thinner and equipment cleaner for use with vinyl antifoulings in North America.
GTA415	0.88	25	77	A thinner and/or equipment cleaner for use with a range of products.
GTA713	0.91	30	86	A thinner and equipment cleaner for use with polyurethane products.
GTA733	0.87	27	81	A thinner for use with certain Interthane products.
GTA803	0.82	-17	1	A thinner and equipment cleaner for use with certain Interplate and Interzinc products.
GTA820	0.82	5	41	A thinner and equipment cleaner for use with certain Interplate products in warmer conditions.
GTA822	0.85	26	79	An equipment cleaner for use with a wide range of products.
GTA840	0.83	17	63	A thinner and equipment cleaner for use with certain Interplate products in colder conditions.
GTA853	0.82	15	59	A thinner and equipment cleaner for use with certain Interline products.
GTA991	0.94	43	109	A thinner and equipment cleaner for certain water based products.
5822	0.84	32	90	A thinner and equipment cleaner for use with certain Epoxy MIL-SPEC products in North America.
7754D	N/A	N/A	N/A	A non-slip aggregate for Interzone 1000 systems.

NOTE: Refer to individual product Technical Data Sheet for specific recommendations.

REGULATORY DATA

The EPA in North America has defined almost all solvents, included those contained herein, as photochemically active. The exceptions include methanol, ethanol, acetone and a few halogenated solvents such as methylene chloride.

VOC values may vary due to regional variations in solvent availability. Consult your local representative for details.

SAFETY

All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety & Environmental standards and regulations.

Prior to use, obtain, consult and follow the Material Safety Data Sheet for this product concerning health and safety information. Read and follow all precautionary notices on the Material Safety Data Sheet and container labels. If you do not fully understand these warnings and instructions or if you can not strictly comply with them, do not use this product. Proper ventilation and protective measures must be provided during application and drying to keep solvent vapour concentrations within safe limits and to protect against toxic or oxygen deficient hazards. Take precautions to avoid skin and eye contact (ie. Gloves, goggles, face masks, barrier creams etc.) Actual safety measures are dependant on application methods and work environment.

EMERGENCY CONTACT NUMBERS:

USA/Canada – Medical Advisory Number 1-800-854-6813

Europe – Contact (44) 191 4696111. For advice to Doctors & Hospitals only contact (44) 207 6359191

China – Contact (86) 532 83889090

R.O.W. – Contact Regional Office

LIMITATIONS

Flash points and SG may vary slightly from the figures quoted due to locally sourced solvents.

WORLDWIDE AVAILABILITY

Consult International Paint.

IMPORTANT NOTE

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

© AkzoNobel, 2014

www.international-marine.com

www.international-pc.com

www.international-pc.com | pc.communication@akzonobel.com

All trademarks mentioned in this publication are owned by the AkzoNobel group of companies. © Akzo Nobel 2015.

AkzoNobel has used its best endeavors to ensure that the information contained in this publication is correct at the time of printing. Please contact your local representative if you have any questions.

Unless otherwise agreed by us in writing, any contract to purchase products referred to in this brochure and any advice which we give in connection with the supply of products are subject to our standard conditions of sale.