

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 (Typical)	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 2010/75/EU)	
See Product Characteristics section for further details			

Protective Coatings

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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) 16 hours	15°C (59°F) 10 hours	25°C (77°F) 5 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 127 kg/cm² (1806 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 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.			

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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.

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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 Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

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 AkzoNobel 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 AkzoNobel.					

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
		20.8 kg	8.6 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.
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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.

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