

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/lt) 70 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)	
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.

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.			

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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. Interzone 1000 is suitable for steelwork exposed under buried conditions (IM3 according to ISO 12944-2)

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.

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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 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.

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