

Epoxy

PRODUCT DESCRIPTION

Intergard 452 is a two component, high build epoxy intermediate.

Pigmented with micaceous iron oxide to comply with the requirements of BS5493:1977

INTENDED USES

To provide excellent barrier protection for exposed steelwork.

Improved long-term overcoating by other two pack epoxies due to surface profile provided by the MIO pigmentation.

Excellent abrasion resistance and durability in minimum number of coats.

PRACTICAL INFORMATION FOR INTERGARD 452

Colour	Silver Grey, Natural Grey
Gloss Level	Matt
Volume Solids	58%
Typical Thickness	75-155 microns (3-6.2 mils) dry equivalent to 129-267 microns (5.2-10.7 mils) wet
Theoretical Coverage	5.80 m ² /litre at 100 microns d.f.t and stated volume solids 233 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
10°C (50°F)	6 hours	24 hours	24 hours	Extended ¹
25°C (77°F)	2 hours	8 hours	16 hours	Extended ¹
35°C (95°F)	2 hours	4 hours	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	1.5 kg/l (12.5 lb/gal)
VOC	3.75 lb/gal (450 g/l) EPA Method 24

See Product Characteristics section for further details

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SURFACE PREPARATION

Primed Surfaces

Intergard 452 should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination and Intergard 452 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 Intergard 452.

Zinc Primed Surfaces

Ensure the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intergard 452. Ensure the zinc primer is fully cured before over coating.

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. 	
Mix Ratio	6.00part(s):1.00part(s) by volume	
Working Pot Life	10°C (50°F) 8 hours	25°C (77°F) 35°C (95°F) 4 hours 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)	Not recommended	
Brush	Suitable	Small area only. Typically 50-75 microns (2.0-3.0 mils) can be achieved
Roller	Suitable	Small area 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 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.	

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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 452 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 452 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 452 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

The following primers/intermediates are recommended for Intergard 452:

Interzinc 22
Interzinc 52
Interzinc 72

For other suitable primers/intermediates/topcoats, consult International Protective Coatings.

Recommended topcoats:

Intergard 740
Interthane 870
Interthane 990

For other suitable 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
	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	
	20 litre	29.7 kg		3.5 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.

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