Intergard® 410

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 m²/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

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
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/lt) 338 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

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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.

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)	15°C (59°F)	25°C (77°F)	40°C (104°F)
8 hours	6 hours	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/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 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 approrpriate regional regulations/legislation.

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 extermely 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.

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	24.2 kg		4.2 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