Intergard 475 HS

Epoxy

International
Protective Coatings

WORLD WIDE PRODUCT RANGE

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 475 HS

Colour	Light grey MIO and a selected range of colours
Gloss Level	Matt
Volume Solids	80%
Typical Thickness	125-200 microns (5-8 mils) dry equivalent to 156-250 microns (6.3-10.0 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*
5°C (41°F)	90 minutes	16 hours	16 hours	Extended*
15°C (59°F)	75 minutes	10 hours	10 hours	Extended*
25°C (77°F)▲	60 minutes	5 hours	5 hours	Extended*
40°C (104°F)▲	N/A	N/A	N/A	N/A

▲ For curing at elevated temperatures an alternative curing agent is available. See Product Characteristics for details.

* See International Protective Coatings Definitions & Abbreviations

Regulatory Data

Flash Point	Base (Part A) 34°C (93°F)	C/A (Part B) 31°C (88°F)	Mixed 33°C (91°F)
Product Weight	2.1 kg/l (17.5 lb/gal)		
VOC	160 g/l	UK - PG6/23(92), Appendix 3	
	1.46 lb/gal (175 g/l)	USA - EPA Method 24	

ECOTECH

Ecotech is an initiative by International Protective Coatings a world leader in coating technology to promote the use of environmentally sensitive products across the globe.

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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 8504:1992.

Primed Surfaces

Intergard 475 HS should always be applied over a recommended anti-corrosive coating scheme. The primer surface should be dry and free from all contamination, and Intergard 475 HS 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 8501-1:1988) or SSPC-SP6, Abrasive Blasting, or SSPC-SP11, Power Tool Cleaning) and patch primed prior to the application of Intergard 475 HS.

Zinc Primed Surfaces

Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intergard 475 HS. 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 parts : 1 part by volume

Working Pot Life

10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
60 minutes	60 minutes	60 minutes	N/A

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/cm² (2,700 p.s.i.)

Air Spray (Pressure Pot)

Recommended

Gun	DeVilbiss MBC or JGA
Air Cap	704 or 765
Fluid Tip	E

Brush

Suitable

Typically 75 microns (3 mils) can be achieved

Roller

Suitable

Typically 75 microns (3 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.

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Product Characteristics

Intergard 475 HS 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 conventional 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 475 HS 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.

If applying Intergard 475 HS 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).

			Overcoating Interval with recommended topcoats	
Temperature	Touch Dry	Hard Dry	*Minimum*	*Maximum*
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 475 HS will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 475 HS 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 475 HS 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.

Systems Compatibility

Intergard 475 HS is designed for use over correctly primed steel. Suitable primers are:

- Intercure 200
- Intergard 251
- Intergard 269
- Intergard 270
- Interzinc 12 (mist coat or tie coat recommended)*
- Interzinc 22 (mist coat or tie coat recommended)*
- Interzinc 42
- Interzinc 52
- Intezinc 280
- Interzinc 315

Suitable topcoats are:

- Intercryl 530
- Interfine 629 HS
- Intergard 475 HS
- Intergard 740
- Interthane 990

For alternative primers and finishes, consult International Protective Coatings.

* See relevant product data sheet for details

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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 sections of the International Protective Coatings data manual:

- 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	20 litre unit	Intergard 475 HS Base Intergard 475 HS Curing Agent	15 litres in a 20 litre container 5 litres in a 5 litre container
	5 gallon unit	Intergard 475 HS Base Intergard 475 HS Curing Agent	3 gallons in a 5 gallon container 1 gallon in a 1 gallon container
	For availability of other pack sizes contact International Protective Coatings		
Shipping Weight	U.N. Shipping No.	1263	
	20 litre unit	35.4 kg (78.0 lb) Base (Part A) 9.3 kg (20.5 lb) Curing Agent (Part B)	
	5 gallon unit	25.9 kg (57.3 lb) Base (Part A) 3.8 kg (8.4 lb) Curing Agent (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.	

International Protective Coatings

Worldwide Availability

World Centre	Asia Region	Australasia Region	Europe Region	Middle East Region	North America Region	South America Region
50 George Street London W1A 2BB England	3 Neythal Road Jurong Town Singapore 628570	115 Hyde Road Yeronga Brisbane Queensland Australia	50 George Street London W1A 2BB England	PO Box 37 Dammam 31411 Saudi Arabia	6001 Antoine Drive Houston Texas 77091	Rua Gomes de Carvalho, 1356, 15° Andar, Vila Olímpia, São Paulo, S.P. CEP: 04547-005 Brazil
Tel: (44) 171 612 1400 Fax: (44) 171 612 1561	Tel: (65) 663 3066 Fax: (65) 266 5287	Tel: (61) 7 3892 8866 Fax: (61) 7 3892 4287 H&S (61) 1800 807 001	Tel: (44) 171 612 1410 Fax: (44) 171 612 1555	Tel: (966) 3 842 8436 Fax: (966) 3 842 4361	Tel: (1) 713 682 1711 Fax: (1) 713 684 1327	Tel: (011) 3044 0344 Fax: (011) 3044 0322