

Epoxy Novolac

PRODUCT DESCRIPTION

An ultra high solids, two component lining system utilising advanced epoxy novolac technology and pigmented with glass flake technology, providing excellent impact resistance, abrasion resistance and adhesion properties.

Envioline 2980 offers excellent chemical and temperature resistance to petrochemical products.

INTENDED USES

Suitable for the internal lining of tanks, storage vessels and process vessels exposed to sour oil and water from gas separator processing vessels at elevated temperatures up to 150°C (302°F).

Envioline 2980 has been specifically formulated to rapidly develop chemical resistance properties. Coated substrates can be rapidly returned to service in 48 hours at 25°C (77°F).

PRACTICAL INFORMATION FOR ENVIROLINE 2980

Colour	Grey, Green, White
Gloss Level	Not applicable
Volume Solids	96%
Typical Thickness	500-800 microns (20-32 mils) dry equivalent to 521-833 microns (20.8-33.3 mils) wet
Theoretical Coverage	1.20 m ² /litre at 800 microns d.f.t and stated volume solids 48 sq.ft/US gallon at 32 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless spray, Plural Component Airless Spray

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	6 hours	18 hours	18 hours	48 hours
15°C (59°F)	4 hours	16 hours	16 hours	36 hours
25°C (77°F)	2 hours	8 hours	8 hours	24 hours
40°C (104°F)	1 hour	6 hours	6 hours	18 hours

REGULATORY DATA

Flash Point (Typical)	Part A >120°C (248°F); Part B 68°C (154°F); Mixed 115°C (239°F)	
Product Weight	1.5 kg/l (12.5 lb/gal)	
VOC	0.31 lb/gal (38 g/l)	EPA Method 24

See Product Characteristics section for further details

Protective Coatings

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SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Abrasive Blast Cleaning

All surfaces must be clean and dry, free of dust, dirt, or other foreign matter. Steel surfaces shall be abrasive blasted to Sa2½ (ISO 8501-1:2007) or SSPC SP10, near-white metal.

Enviroline 2980 must be applied before oxidation of the steel occurs. If oxidation, medium or heavy (flash rust level) occur, the entire oxidised area should be reblasted to the standard specified above. Surface defects revealed by the blast cleaning process should be ground, filled or treated in the appropriate manner.

A sharp angular surface profile of 75-125 microns (3-5 mils) is recommended.

Best performance will always be achieved when Enviroline 2980 is applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) SSPC-SP10 especially in high heat and/or aggressive service.

Ultra High Pressure Hydroblasting

May be applied to surfaces prepared to WJ-2 (NACE WJ-2/SSPC SP WJ 2) which have suffered Light Flash Rust (NACE VIS 7/SSPC-VIS 4).

Contact International Protective Coatings for further information.

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.	
	The product must be heated prior to application; Part A to a maximum of 50°C (122°F) and Part B to a maximum of 35°C (95°F).	
Mix Ratio	3 part(s) : 1 part(s) by volume	
Working Pot Life	25°C (77°F)	40°C (104°F)
	90 minutes	40 minutes
Plural Component Airless Spray	Recommended	Refer to Enviroline Application Guidelines for more details.
Airless Spray	Recommended	Tip Range 0.68-0.78 mm (27-31 thou) Total output fluid pressure at spray tip not less than 288 kg/cm ² (4095 p.s.i.) Apply using a minimum airless spray pump of 64:1 ratio, for optimum results a 68:1 ratio is preferred.
Brush	Suitable - small areas only	
Roller	Suitable - small areas only	
Work Stoppages	Do not allow material to remain in hoses or spray equipment. Thoroughly flush all equipment with International GTA203. 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 material.	
Clean Up	Clean all equipment immediately after use with International GTA203. It is good working practice to periodically flush out spray equipment during the course of the working day. All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

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PRODUCT CHARACTERISTICS

The detailed Enviroline Application Guidelines should be consulted prior to use.

This datasheet provides general guidance on the use of Enviroline 2980. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Enviroline 2980 is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

Storage must be between 20-30°C (68-86°F) to ensure suitable application viscosity.

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).

Do not apply at steel temperatures below 10°C (50°F) or in excess of 50°C (122°F).

The relative humidity during application and curing should not exceed 85%.

The curing times will vary depending upon dry film thickness and conditions that exist during application and throughout curing periods.

Maximum resistance is not attainable until the film has completely cured. Cure is a function temperature, humidity and film thickness. Curing times are proportionately shorter at elevated temperatures and longer at lower temperatures.

Continuous immersion resistance is dependent on particular temperature and chemical exposure.

Meets Petrobras standard N2912 type III.

Contact International Protective Coatings for further information.

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

Enviroline 2980 should always be applied to correctly prepared substrates. When a primer is required as part of the coating specification, consult International Protective Coatings for specific advice.

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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
- Envioline Application Guidelines

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. All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Parts A and B if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that 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.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

Warning: This product contains liquid epoxies and modified polyamines and may cause skin sensitisation if not used correctly.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 litre	24.14 kg	20 litre	4.85 kg	5 litre
For availability of other pack sizes and those specific to Brazil, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		25.57 kg		4.69 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.

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