

## Epoxy Phenolic

**PRODUCT DESCRIPTION** Enviroline 378 is a 100% solids, flexible, single coat, hybrid epoxy system designed as a seam sealer for bolted or riveted storage tanks.

### INTENDED USES

For use on steel storage tank interior and exterior seams, chine area, bolted or riveted areas. Enviroline 378 can be spray applied in a single coat using standard airless or plural component equipment. A low temperature cure (down to -7°C (20°F)) version, Enviroline 378LT, is also available.

Enviroline 378 displays the following benefits:

- Suitable for ethanol
- Corrosion and abrasion resistance
- Good flexibility & impact resistance
- Thick-film, single coat application (60-80 mils)
- Fast curing (**see page 3 for full cure times**)
- Excellent adhesion to steel and concrete

### PRACTICAL INFORMATION FOR ENVIROLINE 378

<b>Colour</b>	Green, Tan			
<b>Gloss Level</b>	Not applicable			
<b>Volume Solids</b>	100%			
<b>Typical Thickness</b>	1500-2000 microns (60-80 mils) dry equivalent to 1500-2000 microns (60-80 mils) wet			
<b>Theoretical Coverage</b>	0.60 m <sup>2</sup> /litre at 1750 microns d.f.t and stated volume solids 23 sq.ft/US gallon at 70 mils d.f.t and stated volume solids			
<b>Practical Coverage</b>	Allow appropriate loss factors			
<b>Method of Application</b>	Airless Spray, Plural Component Airless Spray, Brush			
<b>Drying Time</b>	Overcoating Interval with recommended topcoats			
<b>Temperature</b>	<b>Touch Dry</b>	<b>Hard Dry</b>	<i>Minimum</i>	<i>Maximum</i>
15°C (59°F)	6 hours	10 hours <sup>1</sup>	4 hours	18 hours <sup>2</sup>
25°C (77°F)	3 hours	4 hours <sup>1</sup>	2 hours	6 hours <sup>2</sup>
35°C (95°F)	2 hours	2 hours <sup>1</sup>	1 hour	4 hours <sup>2</sup>

<sup>1</sup> Sufficient coating film strength has developed to permit the handling and movement of coated steelwork. A Shore D hardness reading of 75-80 is a recommended guideline to indicate suitability for return to service.

<sup>2</sup> If the maximum overcoating interval is exceeded it will be necessary to thoroughly abrade the surface of the lining with coarse emery paper.

### REGULATORY DATA

<b>Flash Point (Typical)</b>	Mixed >66°C (151°F)		
<b>Product Weight</b>	1.6 kg/l (13.4 lb/gal)		
<b>VOC</b>	29 g/lt (0.24 lbs/gal)	Calculated	

See Product Characteristics section for further details

## Protective Coatings

## Epoxy Phenolic

### 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.

Where necessary, remove weld spatter and where required smooth weld seams and sharp edges.

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

### Steel Substrates

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. If oxidation has occurred between blasting and application of Enviroline 378, 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 75-125 microns (3-5 mils) is recommended.

### APPLICATION

<b>Mixing</b>	Material is supplied in two containers as a unit. Complete units should be stored, mixed and applied in accordance with the Enviroline Application Guidelines.	
<b>Mix Ratio</b>	2 part(s) : 1 part(s) by volume	
<b>Working Pot Life</b>	25°C (77°F) 35 minutes	35°C (95°F) 12 minutes
<b>Plural Component Airless Spray</b>	Recommended	Refer to Enviroline Application Guidelines for more details.
<b>Airless Spray</b>	Recommended	Tip Range 0.79-0.89 mm (31-35 thou) Total output fluid pressure at spray tip not less than 352 kg/cm <sup>2</sup> (5005 p.s.i.)
<b>Brush</b>	Suitable	Only for small areas or touch ups
<b>Thinner</b>	Not normally required. If necessary, use Enviroline 76T.	Refer to Enviroline Application Guidelines for more details.
<b>Cleaner</b>	Enviroline 71C	
<b>Work Stoppages</b>	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Enviroline 76T. 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.	
<b>Clean Up</b>	Clean all equipment immediately after use with Enviroline 71C. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency should depend upon amount sprayed, temperature and elapsed time, including any delays.	
	All surplus material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

## Epoxy Phenolic

### PRODUCT CHARACTERISTICS

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

This datasheet provides general guidance on the use of Enviroline 378. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel.

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

Stripe coating is an essential part of good working practice and as such should form part of any lining specification. For heavily pitted or porous steel, spray apply approximately 50% of the required film thickness and follow immediately with a short nap roller or squeegee to work material into the bottom of pitted areas.

For airless spray application, heat each component to 35-41°C (95-105° F) prior to mixing. For plural component application, viscosity of the Part A and Part B varies. For best results, heat Part A side to maximum of 60°C (140°F) and heat Part B side to a maximum of 41°C (105°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Use the following chart for preferred temperature conditions. These conditions plus adequate ventilation must be maintained throughout the curing cycle.

	<u>Substrate Temperature</u>	<u>Air Temperature</u>
<b>Preferred</b>	21-49°C (70-120°F)	21-38°C (70-100°F)
<b>Minimum</b>	13°C (55°F)	13°C (55°F)

Typical full cure times at the following ambient temperatures are;

15°C (59°F)	48 hours
25°C (77°F)	24 hours
35°C (95°F)	21 hours

After the coating system has cured hard, the dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the minimum applied system thickness. The coating system should be free of all pinholes or other holidays. The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. The repaired areas shall be retested and allowed to cure as specified before placing the finished lining into service.

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.

### SYSTEMS COMPATIBILITY

Enviroline 378 is compatible with a wide range of Enviroline linings. Please refer to the project coating specification for details.

Enviroline 378 should always be used as part of a system; it is not intended to be a single coat system.

## Epoxy Phenolic

### 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](http://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
	4 US gal	2.67 US gal	5 US gal	1.33 US gal	2 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	4 US gal	36.6 lb		19.5 lb	
STORAGE	Shelf Life	24 months minimum at 25°C (77°F) in original, unopened containers. 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](http://www.international-marine.com) or [www.international-pc.com](http://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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