

## Epoxy Phenolic

### PRODUCT DESCRIPTION

A two component, solvent free chemically resistant heavy duty epoxy phenolic tank lining.

### INTENDED USES

Interline 984 is intended as a lining for the protection of ferrous and non-ferrous substrates (including concrete). It may be used as a single or multi coat scheme, or as either a spray applied fibre reinforced Matcote system or a hand-lay glass reinforced system.

Interline 984 has been formulated to focus on Oil and Gas downstream lining opportunities with extended recoat interval designed to assist with the contract schedules associated with lining bulk storage tanks.

Interline 984 is compliant with E11530 (Joint Industry Group standard). This is the quality assurance requirement for the manufacture, storage and distribution of aviation fuels to airports.

Interline 984 is resistant to crude oil at temperatures up to 194°F (90°C).

### PRACTICAL INFORMATION FOR INTERLINE 984

<b>Color</b>	Yellow, Green, White
<b>Gloss Level</b>	Not applicable
<b>Volume Solids</b>	100%
<b>Typical Thickness</b>	12-24 mils (300-600 microns) when used as an unreinforced system for walls or as a laminate gel coat. 16-40 mils (400-1,000 microns) for use as a single coat on tank floors. 50-56 mils (1,250-1,400 microns) when used as a laminate with fiberglass. Thickness is dependent upon application method and specification.
<b>Theoretical Coverage</b>	<b>Unreinforced:</b> 100 sq.ft/US gallon at 16 mils d.f.t and stated volume solids 2.50 m <sup>2</sup> /liter at 400 microns d.f.t and stated volume solids <b>Laminate:</b> Thickness and coverage are dependent upon the configuration of the surface to be coated.
<b>Practical Coverage</b>	Allow appropriate loss factors
<b>Method of Application</b>	Plural component airless spray, Airless Spray, Brush, Roller

### Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
50°F (10°C)	10 hours	36 hours	36 hours	28 days <sup>1</sup>
59°F (15°C)	9 hours	20 hours	20 hours	28 days <sup>1</sup>
77°F (25°C)	6 hours	12 hours	12 hours	28 days <sup>1</sup>
104°F (40°C)	2 hours	5 hours	5 hours	10 days <sup>1</sup>

<sup>1</sup> The values quoted relate to use within an enclosed tank environment. For situations where UV exposure between coats is likely, maximum overcoating intervals will be shorter. Contact International Protective Coatings for more details.

**REGULATORY DATA** **Flash Point (Typical)** Part A >214°F (101°C); Part B 120°F (49°C); Mixed 167°F (75°C)

**Product Weight** 11.1 lb/gal (1.33 kg/l)

**VOC** 0.58 lb/gal (70 g/l)  
38 g/kg

EPA Method 24 (24 hours)  
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.

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

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

#### Abrasive Blast Cleaning

This product must only be applied to surfaces prepared by abrasive blast cleaning to Sa2½ (ISO 8501-1:2007) or SSPC SP10. A sharp, angular surface profile of 3-4 mils (75-100 microns) is recommended.

Interline 984 must be applied before oxidation of the steel occurs. If oxidation does occur the entire oxidized 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.

Where local VOC regulations allow, surfaces may be primed with Interline 982 to 0.6-1.0 mils (15-25 microns) dry film thickness before oxidation occurs. Alternatively, the blast standard can be maintained by use of dehumidification.

Interline 982 can hold a blast for up to 28 days in the semi-protected environment of a tank interior. If moisture is present on the surface, oxidation will occur and reblasting will be required.

Interline 984 may also be applied over Intergard 269 for some cargoes; see page 3. The Intergard 269 can be overcoated up to 30 days after application; for longer overcoating periods (up to 90 days), the surface should be abraded and fresh water washed.

#### Laminate Systems

Prior to application of the laminate all weld seams, lap joints, plate edges or other designated areas should be caulked using Interline 921.

#### Gel Coat Application

Prior to application of the gel coat, the entire surface to be coated should be abraded to remove any protruding fiberglass strands or other irregularities. The surface should then be vacuum cleaned.

#### Concrete Surfaces

Refer to International Protective Coatings' Concrete Surface Preparation Guidelines for further information.

## APPLICATION

<b>Mixing</b>	The detailed Interline 984 Application Guidelines should be consulted prior to use.			
	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)	Agitate Curing Agent (Part B) with a power agitator.		
	(3)	Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.		
<b>Mix Ratio</b>	2 part(s) : 1 part(s) by volume			
<b>Working Pot Life</b>	50°F (10°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
	60 minutes	50 minutes	30 minutes	15 minutes
<b>Plural component airless spray</b>	Suitable	Consult International Protective Coatings for specific recommendations. See Product Characteristics.		
<b>Airless Spray</b>	Recommended	Tip Range 21-27 thou (0.53-0.68 mm) Total output fluid pressure at spray tip not less than 3000 psi (211 kg/cm²)		
<b>Air Spray (Pressure Pot)</b>	Not recommended			
<b>Brush</b>	Suitable - Small areas only	Typically 6.0-8.0 mils (150-200 microns) can be achieved		
<b>Roller</b>	Suitable - Small areas only	Typically 6.0-8.0 mils (150-200 microns) can be achieved		
<b>Thinner</b>	Not suitable	<b>DO NOT THIN</b>		
<b>Cleaner</b>	International GTA853 or International GTA415			
<b>Work Stoppages</b>	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA853. 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 International GTA853. 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.			

# Interline® 984

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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 Interline 984 Application Guidelines should be consulted prior to use.

When utilizing Interline 984 as a glass fibre laminate system, please refer to the detailed Interline 984 Technical Specification for Glass Fibre Reinforced Systems.

Exact specification for total dry film thickness and number of coats will be dependent upon the service end use requirements. Consult International Protective Coatings for specific advice regarding tank lining applications.

Interline 984 should be applied and inspected in accordance with the detailed Interline 984 Application Guidelines.

Heavily pitted areas should be stripe coated by brush, to ensure good "wetting" of the surface.

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

Do not apply at steel temperatures below 50°F (10°C).

Exposure to unacceptably low temperatures and/or high humidities during, or immediately after, application may result in incomplete cure and surface contamination that could jeopardize subsequent intercoat adhesion.

The cured film should be essentially free of runs, sags, drips, inclusions or other defects. All deficiencies and defects should be corrected. Repaired areas should be rested and allowed to cure as specified before placing the finished lining into service. Consult International Protective Coating Interline 984 Application Guidelines for detailed repair procedures.

#### Return to Service

The following minimum cure times are recommended for Interline 984

<u>Temperature</u>	<u>Schedule 1</u>	<u>Schedule 2</u>
50°F (10°C)	3 days	10 days
59°F (15°C)	2 days	7 days
77°F (25°C)	1 day	6 days
95°F (35°C)	18 hours	4 days
104°F (40°C)	12 hours	3 days

Schedule 1 refers to the minimum cure time at the specified substrate temperature prior to conducting a tank hydrotest or immersion in purely aliphatic petroleum products (e.g diesel or kerosene, however not gasoline or gasoline/alcohol blends). Schedule 2 refers to the minimum cure time at the specified substrate temperature prior to immersion in all other chemicals as per the chemical resistance list.

This material is recommended for the storage of aviation fuel. It is also suitable for storage of unleaded gasoline, although blends containing methanol may be detrimental.

Intergard 269 may only be used as a holding primer for storage of crude oil/water mixes and refined hydrocarbon cargoes.

For storage of cargoes above ambient temperatures, consult International Protective Coatings for further details.

In common with all epoxies Interline 984 will chalk and discolour on exterior exposure. However, these phenomenon are not detrimental to chemical resistance performance.

This product has the following specification approvals:

- Compliance with DEF-STAN 80-97 annex G for the lining of bulk aviation fuel tanks
- Spanish Norma INTA 164402-A
- Meets the performance standard, EI1541 which are the test requirements for EI1530 compliance
- DEP 30.48.00.31- Gen. systems LT1-N and LT1-M for crude oil service
- Compliant with the requirements of MIL PRF 23236

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 color 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

Interline 984 can be applied directly to correctly prepared bare steel. However, it is suitable for application over the following primer:

Interline 982  
Ceilcote 680M (to be used as a sealer for concrete application)  
Intergard 269

This product can also be applied over Interline 921 caulk where this material has been specified.

Interline 984 should only be topcoated with itself, and should never be overcoated with another product.

Consult International Protective Coatings to confirm that Interline 984 is suitable for contact with the product to be stored.