

Interline 984

Epoxy Phenolic



PRODUCT DESCRIPTION

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

INTENDED USES

To provide corrosion protection to the internals of steel storage tanks containing an extensive range of products, including crude oil, unleaded gasoline blends, MTBE, alcohols, aviation fuels, and aromatic and aliphatic solvents.

Interline 984 has been specifically formulated to rapidly develop chemical resistance properties, and also provide extended recoat intervals to assist with contract schedules. Coated substrates can be rapidly returned to service in as little as 24 hours, thereby significantly reducing downtime.

Capable of being used as either a single coat unreinforced system, or in conjunction with fibreglass to form a glass reinforced laminate system.

PRACTICAL INFORMATION FOR INTERLINE 984

Color	Yellow, Green, White
Gloss Level	Not applicable
Volume Solids	100%
Typical Thickness	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.
Theoretical Coverage	Unreinforced: 100 sq.ft/US gallon at 16 mils d.f.t and stated volume solids 2.50 m ² /litre at 400 microns d.f.t and stated volume solids Laminate: Thickness and coverage are dependent upon the configuration of the surface to be coated.
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Plural component airless spray, Roller, Brush,

Drying Time

Temperature	Overcoating Interval with recommended topcoats			
	Touch Dry	Hard Dry	Minimum	Maximum
50°F (10°C)	10 hours	36 hours	36 hours	28 days
59°F (15°C)	9 hours	20 hours	20 hours	28 days
77°F (25°C)	6 hours	12 hours	12 hours	28 days
104°F (40°C)	2 hours	5 hours	5 hours	10 days

REGULATORY DATA

Flash Point	Base (Part A) 214°F (101°C)	C/A (Part B) 120°F (49°C)	Mixed 167°F (75°C)
Product Weight	11.1 lb/gal (1.3 kg/l)		
VOC	0.87 lb/gal (105 g/l)	USA - EPA Method 24	
	50 g/l, 38 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

See Product Characteristics section for further details



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 8504:2000.

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 8501-1:1988) 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 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.

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.

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.

APPLICATION

Mixing	Interline 984 must be applied in accordance with the detailed International Protective Coatings Working Procedures for the application of Tank Linings.			
	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.		
Mix Ratio	2 part(s) : 1 part(s) by volume			
Working Pot Life	50°F (10°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
	60 minutes	50 minutes	30 minutes	15 minutes
Plural component airless spray	Suitable	Consult International Protective Coatings for specific recommendations. See Product Characteristics.		
Airless Spray	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)		
Air Spray (Pressure Pot)	Not recommended			
Brush	Suitable - Small areas only	Typically 6.0-8.0 mils (150-200 microns) can be achieved		
Roller	Suitable - Small areas only	Typically 6.0-8.0 mils (150-200 microns) can be achieved		
Thinner	Not suitable	- DO NOT THIN		
Cleaner	International GTA853	or International GTA415		
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA415. 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 GTA415. 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

The detailed Interline 984 Working Procedures 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.

Apply by airless spray only. Application by other methods, e.g. brush or roller, may require more than one coat and is suggested for small areas only or initial stripe coating.

Interline 984 can be applied by standard 63:1 ratio airless spray equipment when the paint temperature is maintained between 59-77°F (15- 25°C). At lower temperatures an in-line heater of a suitable pressure rating may be used to assist with pumping and atomisation of the product. Additionally, Interline 984 is suitable for application by plural component airless spray equipment capable of accurate proportioning, which allows more flexible application at high temperatures, especially when applying a glass reinforced laminate system.

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.

After the last coat has cured hard, the coating system dry film thickness should be measured using a suitable non-destructive magnetic gauge to verify the average total applied system thickness and the coating system should be free of all pinholes or other holidays. Dry film thicknesses in excess of 20 mils (500 microns), can be checked using a suitable high voltage pulsating type holiday detector, set at 100 volts per mil (25 microns d.f.t.). Excessive voltage may produce a holiday in the coating film. 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. Consult International Protective Coatings Interline 984 Working Procedures for detailed repair procedures.

Depending upon ambient conditions, surfaces coated with Interline 984 can be returned to service after 24 hours. Cure is a function of temperature, humidity and film thickness. Curing times are dependent upon the cargo to be stored, and will also be proportionately shorter at elevated temperatures and longer at lower temperatures. Contact International Protective Coatings for specific advice.

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

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

Due to the presence of low molecular weight chemicals in the formulation, some VOC may be recorded when this product is tested in accordance with the USA-EPA Method 24 and UK-PG6/23(92), Appendix 3 protocols. This is due to the high temperatures used in the test procedures.

This product has the following specification approvals:

DEF stan 80-97 for the lining of bulk aviation fuel tanks.

Air BP Specification F2D2 for Storage of Aviation Fuels

U.S. Military Specification MIL PRF 4556F.

Spanish Norma INTA 164402-A.

Note: VOC values quoted are based on maximum possible for the product taking into account variations due to color differences 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

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.

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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
- Interline 984 Working Procedures
- Interline 984 Technical Specification for Glass Fibre Reinforced Systems

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 (Base and Curing Agent 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 sensitization if not used correctly.

PACK SIZE

18 liter unit	Interline 984 Base	12 liters in a 20 liter container
	Interline 984 C/A	6 liters in a 10 liter container
15 gallon unit	Interline 984 Base	10 gallons in 2 x 5 gallon containers
	Interline 984 C/A	5 gallons in a 5 gallon container

For availability of other pack sizes contact International Protective Coatings

SHIPPING WEIGHT

U.N.Shipping No.	UN3082 (Base) : UN2924 (Curing Agent)
18 liter unit	37.8 lb (17.15 kg) Base (Part A) 22.1 lb (10.02 kg) Curing Agent (Part B)
15 gallon unit	113.9 lb (51.7 kg) Base (Part A) 60.7 lb (27.53 kg) Curing Agent (Part B)

STORAGE

Shelf Life	18 months minimum at 77°F (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. International Paint recommends storage above 50°F (10°C) at all times to ensure stability of the product.
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Important Note

The information given in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Any warranty, if given, or specific Terms & Conditions of Sale are contained in International's Terms & Conditions of Sale, a copy of which can be obtained on request. While we endeavor to ensure that all advice we give about the product (whether in this sheet or otherwise) is correct we have no control over either the quality or 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 whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.

It is the user's responsibility to check that this sheet is current prior to using the product. Issue date: 12/4/2006

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