

Epoxy Novolac

PRODUCT DESCRIPTION

A high solids, chemical resistant lining system with exceptional resistance to a wide range of chemicals and solvents.

INTENDED USES

Ideal for industrial storage and process chemical tanks and pipelines, high pressure crude oil pipes and separation tanks. Also used as a protective coating for highly corrosive environments.

Provides exceptional resistance over a wide range of temperatures and pressures.

PRACTICAL INFORMATION FOR DEVCHEM 253

Colour	Off White, Tank Grey, Pastel Red, Pale Blue
Gloss Level	Semi Gloss
Volume Solids	72 ± 2%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 139-208 microns (5.6-8.3 mils) wet
Theoretical Coverage	5.80 m ² /litre at 125 microns d.f.t and stated volume solids 231 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

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
10°C (50°F)	7.5 hours	20 hours	24 hours	6 days
15°C (59°F)	6 hours	16 hours	16 hours	5 days
25°C (77°F)	4 hours	7 hours	7 hours	60 hours
40°C (104°F)	2 hours	3 hours	3 hours	24 hours

REGULATORY DATA

Flash Point (Typical)	Part A 38°C (100°F); Part B 38°C (100°F); Mixed 38°C (100°F)
Product Weight	1.39 kg/l (11.6 lb/gal)
VOC	1.77 lb/gal (213 g/l) EPA Method 24

See Product Characteristics section for further details

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SURFACE PREPARATION

Steel Substrates

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.

Abrasive blast to minimum SSPC-SP10 or ISO8501-1:2007 Sa2½. The blast profile should be jagged rather than "peened" and between 1.5 to 2.5 mils (38-62 microns). After blasting, vacuum or blow off all abrasive dust and ensure surface remains clean before painting.

Concrete Floors, Poured Concrete:

Cure at least 30 days. Acid etch or abrasive blast slick, glazed concrete or concrete with laitance. Prime with Pre-Prime 167 or Devchem 253

Previously Painted Surfaces

Devchem 253 may not be applied to existing coatings. All coatings must be removed by abrasive blast cleaning to a minimum standard of SSPC SP10, ISO8501-1:2007 Sa2½.

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.	
	Allow the mixed material to stand 15 minutes at 16-27°C (60-80°F) before use. This is not applicable for plural component application.	
Mix Ratio	4 part(s) : 1 part(s) by volume	
Working Pot Life	10°C (50°F)	15°C (59°F) 25°C (77°F) 40°C (104°F)
	8.5 hours	6 hours 3 hours 1 hour
Airless Spray	Recommended	Tip Range 0.48-0.64 mm (19-25 thou) Total output fluid pressure at spray tip not less than 211 kg/cm ² (3000 p.s.i.) See Product Characteristics section for further details
Air Spray (Conventional)	Recommended	Use a fluid tip of 1.78mm (0.070") or larger, a professional grade conventional gun and an air cap with good break-up. The fluid pressure should be kept low, with just enough air pressure to get good break-up of the coating.
Brush	Suitable	
Roller	Suitable	
Thinner	Not normally required	See Product Characteristics section for further details
Cleaner	T-10 Thinner	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with T-10 Thinner. 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 T-10 Thinner. 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 material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.	

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PRODUCT CHARACTERISTICS

Advantages:

- Excellent chemical resistance under ambient cure conditions
- Does not require baking to cure
- High volume solids; low VOC
- Exceptional resistance to a wide variety of chemicals and solvents
- High gloss provides easy cleaning

Coating System: Two coats of Devchem 253 at 125-150 microns (5-6 mils) per coat or three coats at 100-125 microns (4-5 mils) per coat. Use contrasting colours for each coat and stripe coat. Two stripe coats on all sharp edges, cutouts and welds. Note: The maximum dry film thickness of the Devchem 253 system is 450 microns (18 mils). Dry film thickness above 450 microns (18 mils) could reduce the service life of the coating. Cure to put tank into service: 7 days with ventilation at 25°C (77°F) for maximum chemical resistance. If forced heat cure is desired, contact International Paint Protective Coatings.

Contact International Protective Coatings for specific cargo resistance properties.

In common with all epoxies Devchem 253 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Not recommended for immersion in inorganic acids.

Must not be applied over any shop or pre-construction primers.

Ideally, fluid hoses should not be less than 3/8" ID and not longer than 50 feet to obtain optimum results. Longer hose length may require an increase in pump capacity, pressure, and/or thinning.

Thinning is not normally required or desirable. However, at lower temperatures, small amounts (5% or less) of T-10 Thinner can be added to the mixed components depending on local VOC and air quality regulations.

Ventilation: It is very important for the safety of the applicator and the proper performance of the Devchem 253 that good ventilation be provided to all portions of the enclosed area. Recommended tank ventilation involves two important phases. Phase one is to pump fresh, dehumidified air into all areas of the tank, especially "dead air" areas. Phase two is to exhaust, via an explosion proof exhaust fan, the solvent vapors from the lowest portion of the tank. This practice of pumping fresh air into the tank and exhausting solvent vapors out of the lowest part of the tank should be provided throughout the application and curing processes. This practice is to insure that all solvents are removed from the coating. Tanks must be cured 7 days at 25°C (77°F) with ventilation before being put into service. At lower temperatures, longer cure times are required.

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

Devchem 253 is designed only to be topcoated with itself.

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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

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
	5 US gal	4 US gal	6 US gal	1 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
		52.1 lb		10 lb	
	5 US gal	52.1 lb		10 lb	
STORAGE	Shelf Life	24 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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