

Epoxy

PRODUCT DESCRIPTION

A high performance, multi-purpose, surface tolerant, two-component chemically-cured epoxy semi-gloss coating for industrial or high performance architectural coating (HIPAC) applications. For use on properly prepared steel or masonry surfaces.

INTENDED USES

Ideal for structural steel, piping, tanks, and equipment in chemical, fertilizer, power plants, petroleum refineries, pulp and paper mills, water and sewage treatment plants and mining operations. Can also be used in the hard service areas of correctional facilities, schools, commercial and restaurant kitchens where a high performance architectural coating (HIPAC) is required.

PRACTICAL INFORMATION FOR DEVRAN 224V

Color	White and custom colors
Gloss Level	Semi Gloss
Volume Solids	77% ± 2%
Typical Thickness	6 mils (150 microns) dry equivalent to 7.8 mils (195 microns) wet
Theoretical Coverage	206 sq.ft/US gallon at 6 mils d.f.t and stated volume solids 5.10 m ² /liter at 150 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray, Air Spray, Brush, Roller

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
41°F (5°C)	21 hours	43 hours	21 hours	Extended ¹
50°F (10°C)	18 hours	23 hours	18 hours	Extended ¹
77°F (25°C)	90 minutes	5 hours	90 minutes	Extended ¹
104°F (40°C)	60 minutes	60 minutes	60 minutes	Extended ¹

¹ When topcoating with Devthane urethanes, see product characteristics section

REGULATORY DATA

Flash Point (Typical) Part A 82°F (28°C); Part B 81°F (27°C); Mixed 73°F (23°C)

Product Weight 12.5 lb/gal (1.5 kg/l)

VOC 0.23 lb/gal (28 g/l) EPA Method 24

See Product Characteristics section for further details

Protective Coatings

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SURFACE PREPARATION

All surfaces must be sound, dry, clean, free of oil, grease, dirt, mildew, curing compounds, loose and flaking paint and other foreign substances.

New Surfaces:

New Steel: Surfaces should be initially blasted to near-white metal surface cleanliness in accordance with SSPC-SP10 or ISO-Sa2½ for immersion service or commercial blast cleanliness in accordance with SSPC-SP6 or ISO-Sa2 for non-immersion service. Blast profile on steel should be 1.2 - 2.5 mils (38-63 microns) in depth and be of a sharp, jagged nature as opposed to a 'peen' pattern (from shot blasting).

Concrete Block: Remove loose aggregate and repair voids. Fill with Devran 224V or Tru-Glaze WB 4015 block filler.

Concrete Floors, Poured Concrete: Cure at least 30 days. Acid etch or abrasive blast slick, glazed concrete or concrete with laitence. Prime with Pre-Prime 167 or Devran 224V.

Galvanized Steel: Remove dirt and oils by solvent cleaning or with Devprep 88 cleaner or other suitable cleaner followed by a thorough water rinsing. Prime with Devran 203 or Devran 201H epoxy primers for non-immersion. For severe moisture conditions, abrasive blasting is recommended before priming with Devran 224V or Devran 201H epoxy primer.

Previously Painted Surfaces Old coatings should be tested for lifting. If lifting occurs, remove the coating. Otherwise, scuff sand glossy areas and aged epoxy coatings. Clean aged epoxy or urethane coatings with Devprep 88 Cleaner or other suitable cleaner followed by thorough rinsing. Remove cracked and peeling paint. Prime bare areas with appropriate primer.

APPLICATION

Mixing	Devran 224V coating is a two component product supplied in 10 Gallon and 2 Gallon kits which contain the proper ratio of ingredients. The entire contents of each container must be mixed together. Power mix both portions first to obtain a smooth, homogeneous condition, then add the converter slowly with continued agitation. After the converter addition is complete, continue to mix slowly. Allow the mixed material to stand for 15 minutes at 60-80°F (16-27°C) before use. Always re stir before use. Avoid storing or placing containers in direct sunlight.		
Mix Ratio	1 part(s) : 1 part(s) by volume		
Working Pot Life	41°F (5°C) 6 hours	59°F (15°C) 6 hours	77°F (25°C) 6 hours
Airless Spray	Recommended	Tip Range 15-17 thou (0.38-0.42 mm) Total output fluid pressure at spray tip not less than 2204 psi (155 kg/cm ²)	
Air Spray (Pressure Pot)	Recommended		
Brush	Suitable	Typically 4.0 mils (100 microns) can be achieved	
Roller	Suitable	Typically 4.0 mils (100 microns) can be achieved	
Thinner	T-10 Thinner or T-0 Thinner	In South Coast Air Quality Management District	
Cleaner	T-10 Thinner or T-0 Thinner	In South Coast Air Quality Management District	
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with T-10 or T-0 Thinner, depending on VOC regulations. 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 or T-0 Thinner, depending on VOC regulations. 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 corrosion protection
- Resists splash and spillage of solvents, alkalis, salts, moisture, oils, greases, foodstuffs and detergents
- Cold weather cure - application down to 25°F (-4°C)
- Surface tolerant
- Low VOC
- Self-priming on steel or masonry
- Abrasion resistant
- High build/high solids coating

Tinting: Tint the appropriate base with Industrial colourants. (Do not use water based or other colourants). Add colourants to only the base portion. Mix thoroughly before adding the converter portion.

Thinning: Thinning is not normally required or desired. However, at lower temperatures, small amounts (5% or less) of T-10 thinner can be added depending on local VOC and air quality regulations. Any solvent addition should be made after the two components are thoroughly mixed.

Do not apply if relative humidity exceeds 85% or temperature is within 5°F (3°C) of the dew point.

Limitations of Use: Exterior exposure will cause a colour change, early dulling, and loss of gloss, but this does not affect protective properties. Epoxy coatings may yellow during application and cure if exposed to the combustion by-products of improperly vented fossil fuel burning heaters. Commonly finished with Devthane Urethane Enamel for maximum exterior colour and gloss retention.

Cold Weather Applications: For substrate temperatures between 25°F (-4°C) and 40°F (5°C) cold weather additive 060A0000 may be added. Two pint containers of 060A0000 may be added to the converter portion of a 10 Gallon kit of Devran 224V Coating. Thoroughly mix the 060A0000 additive in the converter with a power mixer prior to adding the converter to the base portion.

Where Devran 224V is to be overcoated with Devthane 349QC, 378H or 379H the following overcoating intervals will apply:

	<u>Minimum</u>	<u>Maximum</u>
41°F (5°C)	20 hours	7 days
59°F (15°C)	8 hours	7 days
68°F (20°C)	6 hours	5 days
77°F (25°C)	3 hours	3 days

Where Devran 224V is to be overcoated with Devthane 359H the following overcoating intervals will apply:

	<u>Minimum</u>	<u>Maximum</u>
41°F (5°C)	20 hours	15 days
59°F (15°C)	8 hours	10 days
68°F (20°C)	6 hours	7 days
77°F (25°C)	3 hours	7 days

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.

SYSTEMS COMPATIBILITY

The following primers are recommended for Devran 224V:

Bar-Rust 231	Devran 203
Bar-Rust 231LV	Devran 224V
Bar-Rust 235V	Cathacoat 302H
Tru-Glaze-WB 4030	Devran 201H

The following topcoats are recommended for Devran 224V:

Devthane 349QC	Devthane 378H
Devthane 359H	Devthane 379
Devthane 378	Devthane 379H

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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
	1 US gal	1 US gal	1 US gal	1 US gal	1 US gal
	5 US gal	5 US gal	5 US gal	5 US gal	5 US gal
For availability of other pack sizes contact International Protective Coatings					
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	1 US gal	12.4 lb		12.7 lb	
	5 US gal	68.5 lb		63.6 lb	
STORAGE	Shelf Life	24 months minimum at 77°F (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Disclaimer

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 or 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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