

## Epoxy

### PRODUCT DESCRIPTION

Bar-Rust 234P is a thick-film, 100% solids, proprietary formulated epoxy based low temperature cure tank lining.

### INTENDED USES

Designed as a storage tank lining for water and potable water applications. Bar-Rust 234P is plural component spray applied from 625-1250 microns (25-50 mils) DFT.

NSF certification is for tanks greater than 5,000 gallons (18,927 litres), pipes 36 inches (91cm) in diameter or greater and for valves 4 inches (10cm) in diameter or greater. See listing at [www.NSF.org](http://www.NSF.org) "Drinking Water System Components" for application and cure.



Certified to NSF/ANSI 61

### PRACTICAL INFORMATION FOR BAR-RUST 234P

<b>Colour</b>	Off White, Buff			
<b>Gloss Level</b>	Semi-gloss			
<b>Volume Solids</b>	100%			
<b>Typical Thickness</b>	625-1250 microns (25-50 mils) dry equivalent to 625-1250 microns (25-50 mils) wet			
<b>Theoretical Coverage</b>	1.23 m <sup>2</sup> /litre at 812.50 microns d.f.t and stated volume solids 49 sq.ft/US gallon at 32.5 mils d.f.t and stated volume solids			
<b>Practical Coverage</b>	Allow appropriate loss factors			
<b>Method of Application</b>	Plural Component Airless Spray			
<b>Drying Time</b>	Overcoating interval with self			
<b>Temperature</b>	<b>Touch Dry</b>	<b>Hard Dry</b>	<i>Minimum</i>	<i>Maximum</i>
2°C (35°F)	7 hours	24 hours	5 hours	7 days
25°C (77°F)	4 hours	5 hours	3 hours	7 days
40°C (104°F)	60 minutes	60 minutes	60 minutes	5 days

### REGULATORY DATA

**Flash Point (Typical)** Part A 93°C (199°F); Part B 93°C (199°F); Mixed 93°C (199°F)

**Product Weight** 1.61 kg/l (13.4 lb/gal)

**VOC** 0.12 lb/gal (15 g/lit) EPA Method 24

See Product Characteristics section for further details

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### SURFACE PREPARATION

Surfaces must be dry, clean, free of oil, grease, foreign matter and be structurally sound. Remove all loose paint, mortar spatter, mill scale, and rust.

Surfaces should be cleaned to SSPC-SP1.

#### New Surfaces: Steel

New steel surfaces should be initially abrasive blasted to near-white metal surface cleanliness in accordance with SSPC-SP10 or ISO8501-1:2007 Sa2½. Blast profile on steel should be at least 75 microns (3.0 mils) in depth and be of a sharp, jagged nature as opposed to a “peen” pattern (typically obtained in shot blasting).

#### Previously Painted Surfaces:

Bar-Rust 234P may not be applied to existing coatings. All coatings must be removed and substrates treated as for New Surfaces.

### APPLICATION

<b>Mixing</b>	This material is supplied in full containers for use with plural component airless spray equipment. Once mixed, Bar-Rust 234P must be used within the working pot life specified.	
<b>Mix Ratio</b>	2 part(s) : 1 part(s) by volume	
<b>Working Pot Life</b>	25°C (77°F)    40°C (104°F)	20 minutes    3 minutes
<b>Plural Component Airless Spray</b>	Recommended	For best results the product should be heated to 38°C-49°C (100°F-120°F). See Product Characteristics section for further details
<b>Brush</b>	Suitable - Touch up and small areas only	
<b>Roller</b>	Suitable - Touch up and small areas only	
<b>Trowel</b>	For small areas or repair areas only.	
<b>Thinner</b>	DO NOT THIN	
<b>Cleaner</b>	T-10 Thinner	In the SCAQMD region, use #4267 Low VOC Cleaning Thinner or other solvent in compliance with local VOC and air quality regulations.
<b>Work Stoppages</b>	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.	
<b>Clean Up</b>	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 adhesion to steel and concrete substrates
- Low cured shrinkage
- Low temperature cure - will cure down to 35°F (2°C)
- Excellent water resistance
- Ultra low VOC

Bar-Rust 234P must be applied with a plural component spray system because of the very short pot life. Application tests have determined that a system with two 68:1 airless pumps configured at a 2:1 mix ratio will apply this product with excellent results. For best results the product should be applied heated to 38°C-49°C (100°F-120°F) for each component, then sprayed using minimum 351kg/cm<sup>2</sup> (5000 psi) rated 1/2" fluid hose, equipped with in-line heaters, and an airless spray gun with Tips from 525 to 529 orifice, or an equivalent pressure rated airless gun and tip package. For smaller areas, touch up and repairs a trowel, brush or roller may be used within the limits of the pot life.

It is very important for the safety of the applicator and the proper performance of Bar-Rust 234P that good ventilation be provided to all portions of the enclosed area. It is equally important to bring into the enclosed area dry, fresh air to remove all solvent vapors. Since all solvent vapors are heavier than air, ventilation ducts should reach to the lowest portions of the enclosed areas as well as into any structural pockets. Ventilation should be provided throughout the cure period to ensure all the solvents are removed from the coating.

Application should not take place when relative humidity is more than 85% or the surface temperature is less than 3°C (5°F) above the dew point.

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

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In most circumstances this product is applied direct to the substrate and is not overcoated.

If a primer is required the following NSF certified primers can be used:

Bar-Rust 233H  
Cathacoat 316

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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](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
	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	
	55 US gal	901.9 lb		589.8 lb	
	5 US gal	75.8 lb		46.3 lb	
STORAGE	Shelf Life	12 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.*

*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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