

## Surface Tolerant Epoxy

**PRODUCT DESCRIPTION** An ultra low VOC, high performance, multi-purpose, surface tolerant, two-component chemically-cured epoxy semi-gloss coating.

**INTENDED USES** For use on properly prepared steel or masonry surfaces including immersion (non-potable water) service. Also for concrete floors, interior primed drywall, plaster, and wood surfaces. Ideal for structural steel, piping, storage tanks, machinery, and equipment in petroleum refineries, pulp and paper mills, chemical and fertilizer plants, and sewage treatment plants. Can also be used in the hard service areas of food processing plants, dairies, schools, restaurants, and general industrial buildings & structures.

### PRACTICAL INFORMATION FOR BAR-RUST 235V

|                              |   |
|------------------------------|---|
| <b>Color</b>                 | Off White, custom and ready-mix colors  |
| <b>Gloss Level</b>           | Semi-gloss  |
| <b>Volume Solids</b>         | 75% ± 2%  |
| <b>Typical Thickness</b>     | 4-8 mils (100-200 microns) dry equivalent to 5.3-10.7 mils (133-267 microns) wet  |
| <b>Theoretical Coverage</b>  | 201 sq.ft/US gallon at 6 mils d.f.t and stated volume solids<br>5 m <sup>2</sup> /liter at 150 microns d.f.t and stated volume solids |
| <b>Practical Coverage</b>    | Allow appropriate loss factors  |
| <b>Method of Application</b> | Airless Spray, Roller, Air Spray, Brush   |

#### Drying Time

| Temperature | Touch Dry | Hard Dry | Overcoating Interval with recommended topcoats |                     |
|-------------|-----------|----------|--|---------------------|
|             |           |          | Minimum  | Maximum             |
| 59°F (15°C) | *1        | 10 hours | 6 hours  | 5 days <sup>2</sup> |
| 77°F (25°C) | *1        | 7 hours  | 3 hours  | 5 days <sup>2</sup> |

<sup>1</sup> \* not applicable

<sup>2</sup> Where overcoating is with self or other epoxy finishes, the maximum overcoating interval is 30 days.

**REGULATORY DATA** **Flash Point (Typical)** Part A 100°F (38°C); Part B 100°F (38°C); Mixed 100°F (38°C)

**Product Weight** 11.8 lb/gal (1.42 kg/l)

**VOC** 100 g/lit (0.83 lbs/gal) Calculated

See Product Characteristics section for further details

## Surface Tolerant Epoxy

### SURFACE PREPARATION

Surfaces must be dry, clean, free of oil, grease, form release agents, curing compounds, laitance, other foreign matter and be structurally sound. Remove all loose paint, mortar spatter, mill scale, and rust. All direct to metal coatings provide maximum performance over blasted surfaces. There are situations and cost limitations which preclude blasting. Bar-Rust 235V was designed to provide excellent protection over less than ideal surface preparation. The minimum standard for non-immersion service is SSPC-SP2 or ISO8501-1:2007 St2; for immersion service the minimum standard is SSPC-SP6 or ISO8501-1:2007 Sa2. These minimum surface preparation standards apply to steel that has been previously abrasive blasted, coated and deteriorated. Where very rusty surfaces still remain after cleaning use Pre-Prime 167 Sealer before application of Bar-Rust 235V. All direct to metal coatings provide maximum performance over near-white blasted surfaces.

#### New Steel Substrates

Blast to near-white metal surface cleanliness in accordance with SSPC-SP10 or ISO8501-1:2007 Sa2½ for immersion service, or commercial blast cleanliness in accordance with SSPC-SP6 or ISO8501-1:2007 Sa2 for non-immersion service. Blast profile on steel should be 1.5 to 2.5 mils (38-62 microns) in depth and be of a sharp, jagged nature as opposed to a “peen” pattern (from shot blasting). Surfaces must be free of grit dust.

#### Concrete - New

##### Concrete Block:

Remove loose aggregate and repair voids. Fill with Bar-Rust 235V or Tru-Glaze-WB 4015 blockfiller.

##### 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 Bar-Rust 235V

#### 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 205 epoxy primers for non-immersion. For immersion or severe moisture condition, abrasive blasting is recommended before priming with this product 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

|                                 |   |  |
|---------------------------------|---|--|
| <b>Mixing</b>                   | 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 before use.  |  |
| <b>Mix Ratio</b>                | 4 part(s) : 1 part(s) by volume   |  |
| <b>Working Pot Life</b>         | 59°F (15°C)   | 77°F (25°C)  |
|                                 | 4 hours   | 3 hours  |
| <b>Airless Spray</b>            | Recommended   | Tip Range 19-25 thou (0.48-0.63 mm)<br>Total output fluid pressure at spray tip not less than 3000 psi (211 kg/cm²)<br>See Product Characteristics section for further details |
| <b>Air Spray (Conventional)</b> | Suitable  | See Product Characteristics section for further details  |
| <b>Brush</b>                    | Suitable  |  |
| <b>Roller</b>                   | Suitable  |  |
| <b>Thinner</b>                  | Not normally required   | See Product Characteristics section for further details  |
| <b>Cleaner</b>                  | #4267 Low VOC Cleaning Thinner  |  |
| <b>Work Stoppages</b>           | Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with T-10 Thinner (outside of SCAQMD) or #4267 solvent (inside SCAQMD). 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 (outside of SCAQMD) or #4267 solvent (inside SCAQMD). 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. |  |

## Surface Tolerant Epoxy

### PRODUCT CHARACTERISTICS

#### Advantages:

- Exceptional corrosion protection
- Suitable for salt & fresh water immersion
- Low temperature cure to 0°F (-18°C)
- Surface tolerant – abrasive blasting not required in most applications
- Good adhesion to damp surfaces
- Self-priming for steel & masonry substrates
- Excellent adhesion to tight rust
- Excellent abrasion & chemical resistance
- High solids – high film build
- Ultra low VOC

For airless spray application: 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.

In common with all epoxy coatings Bar-Rust 235V may chalk or discolor on exterior exposure. Rate of chalking will depend upon climatic conditions, will have no adverse effect upon anti-corrosive property and will be limited to a thin surface layer. Bar-Rust 235V may yellow during application and cure if exposed to the combustion by-products of improperly vented fossil fuel burning heaters.

Tinting: Tint the appropriate base (Part A) with industrial colorants. Mix thoroughly before curing agent (Part B) is added.

For compliance to VOC regulations, thin as follows:

South Coast Air Quality Management District (SCAQMD): Thinning is not required, however, if thinning is desired, add #800 VOC Compliant Reducer or T-0 thinner at no more than 10% by volume.

California outside of SCAQMD: Thinning is not required, however, if thinning is desired, add T-0 thinner at no more than 10% by volume.

#### VOC Note:

VOC (TBAC Exempt) when thinned:

<100 g/l (0.83lbs/gall) calculated when thinned with T-0 Thinner or #800 VOC compliant reducer.

VOC (TBAC Non-Exempt) when thinned:

<250g/l (2.08lbs/gall) calculated when thinned with T-0 Thinner.

Surfaces coated with this product may become slippery when wet. For additional slip resistance in areas of pedestrian traffic, add one pound per gallon of coarse pumice or other texturing material.

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 Bar-Rust 235V:

Bar-Rust 235V Cathacoat 302H  
Cathacoat 302HA Cathacoat 302HB  
Cathacoat 303H Cathacoat 304L  
Cathacoat 304V Cathacoat 313  
Cathacoat 315 Cathacoat 315HA  
Cathacoat 315HB Cathacoat 316  
Devran 203 Pre-Prime 167  
Tru-Glaze-WB 4015

The following topcoats are recommended for Bar-Rust 235V:

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

## Surface Tolerant Epoxy

### 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       |
|           | 1 US gal  | 0.8 US gal | 1 US gal | 0.2 US gal | 1 US quart |
|           | 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  |
|---------------------------|-----------|---------|---------|
|                           |           | 11.9 lb | 3.1 lb  |
|                           | 5 US gal  | 56 lb   | 14.1 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](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.*

Copyright © AkzoNobel, 2/5/2015.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

[www.international-pc.com](http://www.international-pc.com)