PRODUCT PROFILE

GENERIC DESCRIPTION
Modified Polyamine Epoxy

COMMON USAGE
An advanced generation, 100% solids epoxy liner for the protection of steel and concrete. It provides excellent resistance to abrasion and is suitable for immersion and chemical contact. For use on the interior and exterior of steel or concrete tanks, reservoirs, and pipes in potable water service.

COLORS
WH108 White. Note: Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

FINISH
Semi-Gloss

SPECIAL QUALIFICATIONS
Certified by NSF International in accordance with NSF/ANSI/CAN Std. 61 and the extraction requirements of NSF/ANSI/CAN 600. Ambient air cured Series FC22 is qualified for use on tanks and reservoirs of 25 gallons (94.6 L) capacity or greater, pipes 6 inches (15.2 cm) in diameter or greater and valves 1 1/2 inch (3.8 cm) in diameter or greater. Reference Tnemec's certified product listing at www.tnemec.com for details on the maximum allowable DFT. Conforms to AWWA D 102 Inside System No. 3. Conforms to AWWA C 210. Contact your Tnemec representative for systems and additional information.

COATING SYSTEM

SURFCAPER/FILLER/PATCHER PRIMERS
Series 215, 218

Self-priming or Series 1, 91-H2O, 94-H2O, LI40, LI40F, N140, N140F, V140, V140F. Note: The following maximum recoat time applies: over Series LI40, N140, V140, 60 days, over Series LI40F, N140F, V140F, 30 days. If the maximum recoat time has been exceeded, the primed surface must be scarified prior to topcoating with Series FC22.

SURFACE PREPARATION

STEEL

Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 3.0 mils.

Immersion Service: SPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 3.0 mils.

Note: When self-priming on steel, a minimum angular anchor profile of 3.0 mils is required. For all other applications, refer to the primer data sheet for recommendations.

CONCRETE

Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness in accordance with ASTM F 1869 “Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride” (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period), F 2170 “Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes” (relative humidity should not exceed 80%), or D 4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method” (no moisture present). Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP10 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide a minimum ICRI-CSP 5 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

ALL SURFACES

Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS

100% (mixed)

RECOMMENDED DFT

16.0 to 40.0 mils (405 to 1015 microns) in a one coat application. Note: Thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative. Note: Dry film thickness that exceeds published recommendations but is in compliance with SSPC PA-2 and ANSI/NSF/CAN Std. 61 certifications is acceptable.

CURING TIME

To Handle Max to Recoat Immersion

<table>
<thead>
<tr>
<th>Temperature</th>
<th>110°F (43°C)</th>
<th>75°F (24°C)</th>
<th>55°F (2°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (days)</td>
<td>1 hour</td>
<td>6 hours</td>
<td>12 hours</td>
</tr>
<tr>
<td></td>
<td>Max to Recoat</td>
<td>7 days</td>
<td>7 days</td>
</tr>
<tr>
<td></td>
<td>Immersion</td>
<td>16 hours</td>
<td>24 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>48 hours</td>
<td></td>
</tr>
</tbody>
</table>

Note: These times are based on a 20.0 mil (500 micron) dry film thickness. Curing time varies with surface temperature, air movement, humidity and film thickness. Ventilation: When used as a tank lining or in enclosed areas, provide adequate ventilation during application and cure.

EPA Method 24 Unthinned: 0.04 lbs/gallon (5 grams/litre) 1,604 mil sq ft/gal (39.4 m²/L at 25 microns.) See APPLICATION for coverage rates.

Two: 1 (Part A amine) to 2 (Part B epoxy)

PACKAGING

<table>
<thead>
<tr>
<th>NET WEIGHT PER GALLON</th>
<th>STORAGE TEMPERATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.56 ± 0.25 lbs (6.06 ± 0.11 kg) (mixed)</td>
<td></td>
</tr>
</tbody>
</table>

Minimum 20°F (-6°C) Maximum 110°F (43°C)

For optimal handling and application characteristics, both material components should be stored at a minimum of 70°F (21°C) or higher for 48 hours prior to use.

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Tnemec representative for current technical data and instructions.
**APPLICATION**

<table>
<thead>
<tr>
<th>COVERAGE RATES</th>
<th>Dry Mils (Microns)</th>
<th>Wet Mils (Microns)</th>
<th>Sq Ft/Gal (m²/Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>16.0 (405)</td>
<td>16.0 (405)</td>
<td>100.9 (3.7)</td>
</tr>
<tr>
<td>Maximum</td>
<td>40.0 (1015)</td>
<td>40.0 (1015)</td>
<td>40.0 (1015)</td>
</tr>
</tbody>
</table>

Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference Tnemec's certified product listing at www.nsf.org for details on the maximum allowable DFT.

**MIXING**

Large Kit: Agitate Parts A & B making sure no pigment remains on the bottom of the can. DO NOT MIX PART A WITH PART B. Use a 1 (Part A amine) to 2 (Part B epoxy) mix ratio heated plural component airless spray unit. Note: Product component A (amine) must be heated to 110°F to 120°F (-43°C to -49°C) and component B (epoxy) must be heated to 120°F to 130°F (54°C to 54°C) prior to and during plural component application. Do not heat component A (amine) above 120°F (49°C) or component B (epoxy) above 130°F (54°C). Prior to use: Keep containers tightly sealed.

Touch-Up Kit: Equipment: A dispensing gun with a thrust ratio of 26:1 is required (F100-TKAP). Material tube must be used in conjunction with provided disposable static mixer in order to ensure proper mixing. Usage: Unscrew retaining ring and remove plug. Save plug in case entire tube is not used. Install static mixing element, replace retaining screw ring, and install tube in gun. Point assembly up and slowly pull the trigger to de-air the mixer. Dispense approximately 1 fluid ounce of material to waste and continue to pump until material is of uniform color with the Part A completely blended with the Part B. Use a putty knife or spatula to ensure adequate coverage and mixing.

For complete instructions on application, please refer to the Series FC22 Plural Component Equipment Recommendations Guide and the Series FC22 Surface Preparation & Application Guide.

**THICKNESS**

DO NOT THIN.

**PURGE TIME**

Less than one minute.

**APPLICATION EQUIPMENT**

HEATED PLURAL COMPONENT AIRLESS EQUIPMENT ONLY. Please refer to the Series FC22 Plural Component Equipment Recommendations Guide for complete instructions on equipment.

Contact Tnemec Technical Service for equipment recommendations.

**SURFACE TEMPERATURE**

Brush: Recommended for small areas, repairs and weld seams.

Minimum 35°F (2°C)     Maximum 130°F (54°C)

The surface should be dry and at least 5°F (3°C) above the dew point. The coating will not cure below minimum surface temperature. Note: Do not apply when humidity exceeds 80%. Dehumidification equipment is recommended if humidity exceeds 80%.

**HOLIDAY TESTING**

If required by the project specifications, holiday testing should be performed in accordance with NACE SP0188. Refer to the Series FC22 Surface Preparation & Application Guide for voltage recommendations and curing parameters prior to testing.

**CLEANUP**

Flush and clean all equipment immediately after use with Tnemec No. 4 Thinner. Use No. 74 Thinner when needed to meet local VOC regulations.