**PRODUCT PROFILE**

**Generic Description**
Modified Polyamine Epoxy

An advanced generation, 100% solids, high-build epoxy for the protection of steel and concrete. It provides excellent resistance to abrasion and is suitable for immersion service in potable water, wastewater, crude oil, and finished fuel environments. Specialized curing mechanism allows for faster cure response with airless spray application.

**Common Usage**
Series 22-WH11 Off-White, 22-1218 Light Blue and 22-1255 Beige are certified by NSF International in accordance with NSF/ANSI Std. 61 and are qualified for use on tanks and reservoirs of five (5) gallons capacity or greater, pipes 1/2” in diameter or greater and valves 1/2” in diameter or greater. Series 20HS, FC20HS, 91-H2O, 94-H2O, N140, N140F, V140 and V140F are the only Std. 61 certified primers for use with Series 22. Reference the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT. Series 22 conforms to AWWA C 210.

Note: Series 22 conforms to API 652 for lining above ground storage tanks. Series 61 is the recommended primer for use with Series 22 in crude oil or finished fuel immersion service environments. Contact your Tnemec representative for systems and additional information.

**Colors**
- WH11 Off-White
- 1218 Light Blue
- 1255 Beige

**Finish**
Semi-Gloss

**Surface Preparation**

**Steel**
- **Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils for dry film thicknesses at 16.0 to 20.0 mils.
- **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 3.0 mils for dry film thicknesses at 20.0 mils or greater.
- **Enclosed, Protected & Mild Environments:** Contact your Tnemec representative or Tnemec Technical Service.

**Ductile Iron**
- **Welds:** Remove weld spatter, burrs, or protrusions; remove and/or round sharp edges; and smooth rough welds prior to abrasive blasting. Welds should be ground to remove any irregularities and are considered ready for painting when a minimum finishing level of a C designation, as defined by NACE SP0178 latest revision, has been achieved.

**Concrete**
- **All Surfaces:** Must be clean, dry and free of oil, grease, chalk and other contaminants.
- **Recommended DFT:** 16 to 40 mils (400 to 1016 microns) in one or two coats.

**Technological Data**

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To Touch</th>
<th>Dry Through</th>
<th>Minimum to Recoat</th>
<th>Return to Service</th>
<th>Maximum to Recoat</th>
</tr>
</thead>
<tbody>
<tr>
<td>95°F (35°C)</td>
<td>2 1/2 hours</td>
<td>5 1/2 hours</td>
<td>4 hours</td>
<td>5 days</td>
<td>7 days</td>
</tr>
<tr>
<td>75°F (24°C)</td>
<td>7 hours</td>
<td>18 hours</td>
<td>16 hours</td>
<td>5 days</td>
<td>7 days</td>
</tr>
<tr>
<td>50°F (10°C)</td>
<td>24 hours</td>
<td>27 hours</td>
<td>32 hours</td>
<td>7 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

**Note:** These cure times are based on 20.0 mil (500 micron) dry film thickness. Cure 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.

**Volatile Organic Compounds**
- **Unthinned:** 0.10 lbs/gallon (12 grams/litre)
- **Thinned 5%:** 0.44 lbs/gallon (52 grams/litre)

**HAPS**
- **Unthinned:** 0.00 lbs/gal solids
- **Thinned 5%:** 0.37 lbs/gal solids

**Theoretical Coverage**
1,601 sq ft/gal (39.4 m²/L at 25 microns). See APPLICATION for coverage rates.

**Number of Components**
Two. Part A (polyamine) and Part B (epoxy)

**Mixing Ratio**
By volume: 1 (Part A) to 1 (Part B)
EPOXOLINE® | SERIES 22

PRODUCT DATA SHEET

APPLICATION

COVERAGES RATES

<table>
<thead>
<tr>
<th></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 (400)</td>
<td>16.0 (400)</td>
<td>100 (9.3)</td>
</tr>
<tr>
<td>Maximum</td>
<td>40.0 (1016)</td>
<td>40.0 (1016)</td>
<td>40 (3.7)</td>
</tr>
</tbody>
</table>

A minimum of 30 mils (762 microns) is recommended for crude oil and finished fuels. 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.†

Mix the entire contents of Part A and Part B separately. Scrape all of the Part A and Part B into a suitable container by using a flexible spatula. Use a variable speed drill with a PS Tiffany blade and mix the blended components for a minimum of two minutes. Apply the mixed material within the spray or pot life limits after agitation. For optimum application characteristics, material temperature should be between 70°F (21°C) and 80°F (27°C). Note: A large volume of material will gel quickly if not applied or reduced in volume.

Caution: Do not reseal mixed material. An explosion hazard may be created.

May thin up to 5% or 6 fluid ounces per gallon with No. 2 Thinner. DO NOT thin in areas with strict extractable regulations.

Spray Life

Unthinned: 25 minutes at 75°F (24°C)
Thinned 5%: 1 hour at 75°F (24°C) 30 minutes at 90°F (32°C)

Airless Spray

<table>
<thead>
<tr>
<th>Spray Gun</th>
<th>Pump Size</th>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graco XHF, XTR7</td>
<td>56.1, X50 or X60</td>
<td>0.019&quot;-0.023&quot; (485-585 microns)</td>
<td>5500-6000 psi (379-413 bar)</td>
<td>See Below</td>
<td>N/R</td>
</tr>
</tbody>
</table>

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Note: Remove all filters. Material needs to be gravity fed through a material hopper. Material will not feed through a suction tube. Note: If mixed material temperature in mass exceeds 150°F (66°C), immediately purge all spray equipment suction tube.

In areas with strict extractible limitations in potable water and thinning is not permitted:

Material Hose ID (Nominal 200 feet): Attach up to 200' x ½" hose to the pump. Attach a 10' x 3/8" whip hose to the ½" hose.

In areas where thinning is allowed:

Material Hose ID (Nominal 200'): Attach up to 200' x ⅜" hose to the pump. Attach a 5' x ¼" whip hose to the ⅜" hose.

Plural Component Application: Contact Tnemec Technical Service for detailed equipment requirements.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

Roller: Application not recommended.

SURFACE TEMPERATURE

Minimum 50°F (10°C) Maximum 130°F (54°C)

The surface temperature should be at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature. To avoid outgassing, concrete temperature should be stable or in a descending temperature mode.

MATERIAL TEMPERATURE

Prior to application, the material temperature should be between 70°F and 80°F (21°C and 27°C). It is suggested the material be stored at these temperatures at least 48 hours prior to use. Temperature will affect the workability. Cool temperatures increase viscosity and decrease workability. Warm temperatures will decrease viscosity and shorten pot life.

HOLIDAY TESTING

If required by the project specifications, holiday testing should be performed in accordance with NACE SP0188. Contact Tnemec Technical Service for voltage recommendations and curing parameters prior to testing.

CLEANUP

Flush and clean all equipment immediately after use with Tnemec No. 4 Thinner. Use Tnemec No. 68 Thinner when needed to comply with VOC regulations.

† Values may vary with color.

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