PRODUCT PROFILE

GENERIC DESCRIPTION
Polyamideamine Epoxy

COMMON USAGE
Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C with 44-700 Accelerator). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.

COLORS
1211 Red, 1255 Beige, 00WH Tnemec White, 15BL Tank White, 35GR Black and 39BL Delft Blue. 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.

SPECIAL QUALIFICATIONS
Certified by NSF International in accordance with ANSI/NSF Std. 61, Series N140 manufactured by Tnemec Company in Kansas City, Missouri or Baltimore, Maryland; ambient air cured (with or without 44-700 Epoxy Accelerator) is qualified for use on tanks and reservoirs of 1,000 gallons (3,785 L) capacity or greater, pipes 18 inches (46 cm) in diameter or greater, valves four (4) inches (10 cm) in diameter and greater and fittings four (4) inches (10 cm) in diameter or greater. Series N140 manufactured by Tnemec Coatings in Shanghai, China; ambient air cured (with or without 44-700 Epoxy Accelerator) is qualified for use on pipes 18 inches (46 cm) in diameter or greater, valves four (4) inches (10 cm) in diameter or greater and fittings four (4) inches (10 cm) in diameter or greater. Reference Tnemec's certified product listing at www.ndf.org for details on the maximum allowable DPT.

Conforms to AWWA D 102 Inside Systems No. 1 and No. 2 (with or without 44-700). Conforms to AWWA C 210 (without 44-700). Contact your Tnemec representative for systems and additional information.

COATING SYSTEM

SURFACE/FILLER/PATCHER
Series 215, 217, 218

PRIMERS

TOPCOATS
Interior: Series 22, FC22, LI40, LI40F, N140, N140F, V140, V140F, LI40, 141, 264, 265, 406, 408. Exterior: Series 22, 27, 27WB, 30, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, 118, LI40, LI40F, N140, N140F, V140, V140F, 141, 156, 157, 161, 180, 181, 464, 700, V700, 701, V701, 740, 750, 1026, 1028, 1029, 1074, 1074U, 1075, 1075U, 1077, 1078, 1078V, 1080, 1081, 1094, 1095, 1096, 1224. Note: When topcoating with Series 700, V700, 701 or V701, an intermediate coat of Series 73, 1075, 1075U, 1095 or 1096 is required. Note: The following recoat times apply for Series N140. Immersion Service—Surface must be scarified by blasting with fine abrasive after 60 days. Atmospheric Service—After 60 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140 is 21 days. Note: When topcoating with Series 406, recoat times will vary with temperature. Reference the Series 406 product data sheet for specific recoat times. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

STEEL
Immersion Service: SSPC-SP10/NACE 2 Near-White Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils. Non-immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils. Note: Commercial Blast Cleaning generally produces the best coating performance for this exposure. If conditions will not permit this, in moderate exposures Series N140 may be applied to SSPC-SP2 or SP3 Hand or Power Tool Cleaned surfaces (SSPC Rust Grade Condition C).

CAST/DUCTILE IRON
All external surfaces of ductile iron pipe and fittings shall be delivered to the application facility without asphalt or any other protective lining on the exterior surface. All oils, small deposits of asphalt paint, grease, and soluble deposits should be removed and uniformly abrasive blasted using angular abrasive in accordance with NFPF 500-05-04: External Pipe Surface Condition. When viewed without magnification, the exterior surfaces shall be free of all visible dirt, dust, loose annealing oxide, rust, mold coating and other foreign matter. Any area where rust reappears before application shall be relaftled. The surface shall contain a minimum angular anchor profile of 1.5 mils (38.1 microns) (Reference NACE RP0287 or ASTM D 4417, Method C).

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 the Terasaki Method” or ASTM D 4417, Method C. Note: Immersion Service—Surface must be scarified by blasting with fine abrasive after 60 days. Atmospheric Service—After 60 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for N140 is 21 days. Note: When topcoating with Series 406, recoat times will vary with temperature. Reference the Series 406 product data sheet for specific recoat times. Contact your Tnemec representative for specific recommendations.

PRIMED SURFACES
Immersion Service: Scuff the Series N140 prime coat by brush-blasting with fine abrasive before topcoating if: (a) the Series N140 prime coat has been in exterior exposure for 60 days or longer and Series 66, L69, L69F, N69, N69F, V69, V69F, LI40, LI40F, N140, N140F, V140, V140F or 161 is the specified topcoat; (b) the Series N140 prime coat has been in exterior exposure for 7 days or longer and Series 264 or 265 is the specified topcoat.

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

TECHNICAL DATA

VOLUME SOLIDS
67.0 ± 2.0% (mixed—A, B & 44-700 Epoxy Accelerator)†

RECOMMENDED DFT
2.0 to 10.0 mils (50 to 225 microns) per coat. Note: Dry film thickness that exceeds published recommendations but is in compliance with SSPC PA-2 and ANSI/NSF Std. 61 certifications, is acceptable. Note: The number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.
**POTA-POX® PLUS | SERIES N140**

**VOLATILE ORGANIC COMPOUNDS**

- **APPLICATION**
  - **TEMPERATURE RESISTANCE**
  - **NUMBER OF COMPONENTS**
  - **NET WEIGHT PER GALLON**
  - **THEORETICAL COVERAGE**
  - **PACKAGING**
  - **FLASH POINT - Seta**
  - **SHELF LIFE**
  - **STORAGE TEMPERATURE**

- **COVERAGE RATES**

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**Mixing**

Start with equal amounts of Series N140 Parts A and B. Power mix contents of each container separately, making sure no components. If Series 44-700 is not being used, proceed with mixing and add an equal volume of Part A to Part B while under agitation. Continue agitation until the two components are thoroughly mixed. **Note:** Both components must be above 50°F (10°C) prior to mixing. For optimum mixing and application properties, the material should be above 60°F (16°C).

If using Series 44-700 accelerator, slowly add four (4) fluid ounces of 44-700 per gallon to Series N140 Part A material while under agitation and proceed with adding Part B. **Note:** The use of more than the recommended amount of 44-700 will adversely affect performance.

**Thinning**

Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (190 mL) per gallon with No. 4 Thinner or thin up to 5% or 1/4 pint (190 mL) per gallon with No. 60 Thinner. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Caution:** Series N140 NSF certification is based on thinning with No. 4 or No. 60 Thinner for tanks and only No. 60 Thinner for pipe, valves and fittings. Use of any other thinner voids ANSI/NSF Std. 61 certification.

**Pot Life**

Without 44-700: 6 hours at 50°F (10°C)  4 hours at 75°F (24°C)  1 hour at 100°F (38°C)

With 44-700: 2 hours at 50°F (10°C)  1 hour at 75°F (24°C)  30 minutes at 100°F (38°C)

**Spray Life**

Without 44-700: 1 hour at 77°F (25°C)  With 44-700: 30 minutes at 75°F (24°C)

**Note:** Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

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**Curing at 5 mils DFT**

Without 44-700 Accelerator:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>To Handle</th>
<th>To Recoat</th>
<th>Immersion</th>
</tr>
</thead>
<tbody>
<tr>
<td>90°F (32°C)</td>
<td>5 hours</td>
<td>7 hours</td>
<td>7 days</td>
</tr>
<tr>
<td>80°F (27°C)</td>
<td>7 hours</td>
<td>9 hours</td>
<td>7 days</td>
</tr>
<tr>
<td>70°F (21°C)</td>
<td>9 hours</td>
<td>12 hours</td>
<td>7 days</td>
</tr>
<tr>
<td>60°F (16°C)</td>
<td>16 hours</td>
<td>22 hours</td>
<td>9 to 12 days</td>
</tr>
<tr>
<td>50°F (10°C)</td>
<td>24 hours</td>
<td>32 hours</td>
<td>12 to 14 days</td>
</tr>
</tbody>
</table>

Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure. **Note:** Refer to product listing on www.nsf.org for specific potable water return to service information. **Note:** For faster curing and low temperature applications, add No. 44-700 Epoxy Accelerator, see separate product data sheet for cure information.

**Net Weight per Gallon**

- **Storage Temperature**
- **Temperature Resistance**
- **Shelf Life**
- **Flash Point - Seta**
- **Health & Safety**

**Theoretical Coverage**

- **Number of Components**
- **Packaging**

- **Part A:** 82°F (28°C)  
- **Part B:** 80°F (27°C)  
- **44-700:** None

**Yield (mixed)**

- **Large Kit:** 5 gallon pail  
- **Small Kit:** 1 gallon can

**Coverage Rates**

- **Dry Mils (Microns)**
- **Wet Mils (Microns)**
- **Sq Ft/Gal (m²/Gal)**

**Net Weight per Gallon**

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</tr>
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</table>

**Reference 44-700 Epoxy Accelerator product data sheet for its packaging information.**

- **Unthinned:** 2.4 lbs/gallon (285 grams/litre)
- **Thinned 5% (#60):** 2.6 lbs/gallon (311 grams/litre)
- **Thinned 10% (#4):** 2.8 lbs/gallon (334 grams/litre)

**Unthinned:** 2.4 lbs/gal solids  
**Thinned 5% (#60):** 2.4 lbs/gal solids  
**Thinned 10% (#4):** 3.5 lbs/gal solids

1,070 mil sq ft/gal (27.2 m²/L at 25 microns). See APPLICATION for coverage rates. **†**

**Two:** Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

Reference 44-700 Epoxy Accelerator product data sheet for cure information.
APPLICATION EQUIPMENT

<table>
<thead>
<tr>
<th>Gun</th>
<th>Fluid Tip</th>
<th>Air Cap</th>
<th>Mat'l Hose ID</th>
<th>Atomizing Pressure</th>
<th>Pot Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVilbiss JGA</td>
<td>E</td>
<td>765 or 704</td>
<td>5/16&quot; or 3/8&quot; (7.9 or 9.5 mm)</td>
<td>3/8&quot; or 1/2&quot; (9.5 or 12.7 mm)</td>
<td>50-80 psi (3.4-5.5 bar)</td>
</tr>
</tbody>
</table>

Airless Spray

<table>
<thead>
<tr>
<th>Tip Orifice</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.015&quot;-0.019&quot; (380-485 microns)</td>
<td>3000-4800 psi (207-330 bar)</td>
<td>1/4&quot; or 3/8&quot; (6.4 or 9.5 mm)</td>
<td>60 mesh (250 microns)</td>
</tr>
</tbody>
</table>

Low temperatures or longer hoses require higher pot pressure. Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.

Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.

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

SURFACE TEMPERATURE

Without 44-700: Min. 50°F (10°C), Max. 135°F (57°C)

With 44-700: Min. 35°F (2°C), Max. 135°F (57°C)

The surface should be dry and at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or MEK.

† Values may vary with color.