Aromatic Urethane, Zinc-Rich

A single-component, moisture-cured, zinc-rich primer for steel structures, including the interior and exterior of steel potable water tanks. Provides outstanding long-term corrosion resistance when used as a primer in conjunction with other Tnemec coatings. It cures quickly and offers rapid recoat at surface temperatures down to 35°F. **Note:** When used in conjunction with cathodic protection, anodes or impressed current systems should not provide current demand more negative than –1.05 volts relative to a copper-copper sulfate reference electrode half-cell.

**COLORS**
Greenish-gray

**ZINC PIGMENT**
83% by weight in dried film

Certified (with or without 44-710 Urethane Accelerator) in accordance with ANSI/NSF Std. 61 for use on interior potable water tanks of 500 gallons or greater. Topcoating with Std. 61 certified Tnemec coatings is required. Contact your Tnemec representative for specific recommendations. Reference “Search Listings” section of the NSF website at www.nsf.org for details on the maximum allowable DFT. Meets zinc-rich primer requirements of AWWA D102-17 Standard for Inside System No. 3 & 5 and Outside System No. 3, 4 & 6, Series 94-H₂O uses a zinc pigment which meets the requirements of ASTM D 520 Type III and contains less than 0.002% lead.

**PERFORMANCE CRITERIA**
Extensive test data available. Contact your Tnemec representative for specific test results.

**COATING SYSTEM**

**TOPCOATS**
**Interior:** Series 20, 20HS, FC20, FC20HS, 22, FC22, L140, LI40F, N140, NI40F, V140, V140F, 141, 215, 406
**Exterior:** Series 27WB, 66, 66HS, L69, L69F, N69, N69F, 73, 115, 156, 161, 161HS, 215, 1026, 1029, 1028, 1074, 1074U, 1075, 1075U, 1080, 1081. **Note:** Certain topcoat colors may not provide one-coat hiding depending on method of application. Contact your Tnemec representative. **Note:** Series 94-H₂O must be exterior exposed for three days prior to topcoating with Series 1029 or 1028. **Note:** Series 94-H₂O must be exterior exposed for one day prior to topcoating with Series 27WB.

**SURFACE PREPARATION**

Wet Interior: SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Exterior** or Dry Interior: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

**TECHNICAL DATA**

**VOLUME SOLIDS**
62.0 ± 2.0% (mixed)

**RECOMMENDED DFT**
2.5 to 3.5 mils (65 to 90 microns) per coat.

**CURING TIME**

<table>
<thead>
<tr>
<th>Temperature (°F)</th>
<th>75°F (24°C)</th>
<th>55°F (11°C)</th>
<th>35°F (2°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To Handle</td>
<td>2 hours</td>
<td>4 hours</td>
<td>6 hours</td>
</tr>
<tr>
<td>To Recoat</td>
<td>8 hours</td>
<td>12 hours</td>
<td>16 hours</td>
</tr>
</tbody>
</table>

1 50% relative humidity. **Note:** Refer to product listings on www.nsf.org for specific potable water return to service information. Curing time will vary with surface temperature, humidity and film thickness. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure.

**THEORITICAL COVERAGE**
996 mil sq ft/gal (24.4 m²/L at 25 microns). See APPLICATION for coverage rates.

**THEORETICAL COVERAGE**

**NUMBER OF COMPONENTS**
One

**PACKAGING**
5 gallon (18.9L) pails (yielding 3 gallons) and 1 gallon (3.79L) cans.

**NET WEIGHT PER GALLON**
24.92 ± 0.60 lbs (11.30 ± .27 kg)

**STORAGE TEMPERATURE**
Minimum 20°F (-7°C)  Maximum 110°F (43°C)

**TEMPERATURE RESISTANCE**
Dry (Continuous) 250°F (121°C)  Intermittent 300°F (149°C)

**SHELF LIFE**
9 months at recommended storage temperature.

**FLASH POINT - SETA**
82°F (28°C)

**TEMPERATURE**
† 50% relative humidity. **Note:** For faster curing, low humidity and low-temperature applications, add No. 44-710 Urethane Accelerator (see separate product data sheet). **Note:** For cure times to immersion service, reference the specified Tnemec interior topcoat system. **Note:** Without 44-710 Accelerator, 2.5 to 3.5 mils (65 to 90 microns) per coat.

**FLAMMABLES**
Unthinned: 0.74 lbs/gallon (89 grams/litre)
Thinned 15% (No. 49 Thinner): 0.74 lbs/gallon (89 grams/litre)
Thinned 10% (No. 2 Thinner): 1.57 lbs/gallon (188 grams/litre)
Thinned 10% (No. 2 Thinner): 1.56 lbs/gallon (187 grams/litre)

**HAPS**
Unthinned: 1.68 lbs/gal solids
Thinned 15% (No. 49 Thinner): 1.68 lbs/gal solids
Thinned 10% (No. 2 Thinner): 1.72 lbs/gal solids
Thinned 10% (No. 2 Thinner): 2.84 lbs/gal solids

**PACKAGING**

5 gallon (18.9L) pails (yielding 3 gallons) and 1 gallon (3.79L) cans.
Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product. Keep out of the reach of children.

**APPLICATION**

<table>
<thead>
<tr>
<th>COVERAGE RATES</th>
<th>Dry Mil (Microns)</th>
<th>Wet Mil (Microns)</th>
<th>Sq Ft/Gal (m²/Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested</td>
<td>3.0 (75)</td>
<td>5.0 (125)</td>
<td>531 (30.8)</td>
</tr>
<tr>
<td>Minimum</td>
<td>2.5 (65)</td>
<td>4.0 (100)</td>
<td>598 (37.0)</td>
</tr>
<tr>
<td>Maximum</td>
<td>3.5 (90)</td>
<td>5.5 (140)</td>
<td>284 (26.4)</td>
</tr>
</tbody>
</table>

Allow for overspray and surface irregularities. Wet 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 the "Search Listings" section of the NSF website at www.nsf.org for details on the maximum allowable DFT.

**MIXING**

Stir thoroughly making sure no pigment remains on the bottom of the can. Use an air-driven power mixer and keep material under constant agitation while mixing. Do not use material beyond pot life limits.

**THICKENING**

For air-spray, thin up to 15% or 1 1/4 pints (570 mL) per gallon with No. 49 Thinner or thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 or No. 3 Thinner. (Use No. 2 if ambient temperatures are below 80°F [27°C] and No. 3 if above 80°F [27°C]). For brush or roller, thin up to 5% or 1 1/4 pint (190 mL) per gallon with No. 49 Thinner or thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 or No. 3 Thinner. Thinning is normally not required for airless spray. Note: No. 49 Thinner may be used where VOC restrictions apply. Caution: Series 94-H₂O certification is based on thinning with No. 49, No. 2 or No. 3 Thinner. Use of any other thinner voids NSF/ANSI Std. 61 certification.

**POT LIFE**

8 hours at 77°F (25°C) and 50% R.H. Caution: This product cures with moisture acting as a catalyst. Incorporation of moisture or moisture laden air (humidity) during use will shorten pot life. Avoid continual agitation at high RPM. When feasible keep containers of mixed material covered during use.

**APPLICATION EQUIPMENT**

**Air Spray**

<table>
<thead>
<tr>
<th>Gun</th>
<th>Fluid Tip</th>
<th>Air Cap</th>
<th>Air Hose ID</th>
<th>Mat'l Hose ID</th>
<th>Atomizing Pressure</th>
<th>Pot Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>DeVilbiss JGA 3</td>
<td>E</td>
<td>704</td>
<td>5/16&quot; or 3/8&quot; (7.9 or 9.5 mm)</td>
<td>5/8&quot; or 1/2&quot; (9.5 or 12.7 mm)</td>
<td>40-50 psi (2.8-4.5 bar)</td>
<td>10-20 psi (0.7-1.4 bar)</td>
</tr>
</tbody>
</table>

† (with heavy mastic spring) Low temperatures or longer hoses will require additional pressure. Use pressure pot equipped with an agitator and keep pressure pot at same level or higher than the spray gun. Compressed air must be dry.

**Airless Spray**

<table>
<thead>
<tr>
<th>Tip Orifice (380-481 microns)</th>
<th>Atomizing Pressure</th>
<th>Mat'l Hose ID (207-276 bar)</th>
<th>Manifold Filter</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.015&quot;-0.019&quot; Reversible Tip</td>
<td>3000-4000 psi (6.4 or 9.5 mm)</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>

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

**SAFETY**

**Surface Temperature**

Minimum 35°F (2°C) Maximum 140°F (60°C). The surface should be dry and at least 5°F (3°C) above the dew point. Note: Series 44-710 Accelerator must be used if the surface temperature is 35°F to 60°F (2°C to 16°C) and 20% to 40% relative humidity. Please reference Technical Bulletin 98-14 for more information.

**Ambient Humidity**

Minimum 20% Maximum 90%

Flush and clean all equipment immediately after use with the recommended thinner or xylene or, when required by SCAQMD regulations, No. 49 Thinner.

**Cleanup**

Series 94-H₂O, with one-component configuration, prevents the product's ability to offer “dry-fall” characteristics.