



# TNEME-ZINC SERIES 90-97

## PRODUCT PROFILE

<b>GENERIC DESCRIPTION</b>	Aromatic Urethane, Zinc-Rich
<b>COMMON USAGE</b>	An advanced technology, two-component, moisture-cured, zinc-rich primer providing extraordinary performance. It's user friendly and rapid curing so chemical- and corrosion-resistant topcoats can be applied the "same-day." Also used for field touch-up of inorganic zinc coating. Application methods include "dry-fall" under certain conditions (see Application).
<b>COLORS</b>	90-97 Reddish-gray
<b>ZINC PIGMENT</b>	83% by weight in dried film
<b>SPECIAL QUALIFICATIONS</b>	Series 90-97 meets <b>AISC</b> requirements of Class B surface with a mean slip coefficient no less than 0.50 and a tension creep not in excess of .005 inches (.13mm). Tnemec-Zinc uses a zinc pigment which meets the requirements of <b>ASTM D 520 Type III</b> and contains less than .002% lead. This level qualifies it to be classed as "non-lead" (less than 0.009% lead by weight) as defined in 16 CFR Part 1303 of the Consumer Product Safety Commission regulations. Conforms to <b>SSPC Paint 20, Type II</b> .
<b>PERFORMANCE CRITERIA</b>	Extensive test data available. Contact your Tnemec representative for specific test results.

## COATING SYSTEM

<b>TOPCOATS</b>	Series 1, 6, 27, 27WB, 46H-413, 66, L69, L69F, N69, N69F, V69, V69F, 73, 104, 113, 114, 115, 135, 161, 394, 1028, 1029, 1074, 1074U, 1075, 1075U <b>Note:</b> Certain topcoat colors may not provide one-coat hiding depending on method of application. Contact your Tnemec representative. <b>Note:</b> Series 90-97 must be exterior exposed for three days prior to topcoating with Series 1028 or 1029. <b>Note:</b> Series 90-97 must be exterior exposed for one day prior to topcoating with Series 27WB.
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## SURFACE PREPARATION

**Severe Exposure:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils.  
**Moderate Exposure:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

## TECHNICAL DATA

<b>VOLUME SOLIDS</b>	63.0 ± 2.0% (mixed)
<b>RECOMMENDED DFT</b>	2.5 to 3.5 mils (65 to 90 microns) per coat.
<b>CURING TIME</b>	Without 44-710

Temperature †	To Handle	To Recoat
75°F (24°C)	1 hour	4 hours
65°F (18°C)	1 1/2 hours	5 hours
55°F (13°C)	2 hours	6 hours
45°F (7°C)	2 1/2 hours	7 hours
35°F (2°C)	3 hours	8 hours

† 50% relative humidity. Curing time will vary with surface temperature, humidity and film thickness.  
**Note:** For faster curing, low humidity and low-temperature applications, add No. 44-710 Urethane Accelerator (see separate product data sheet).

<b>VOLATILE ORGANIC COMPOUNDS</b>	<b>Unthinned:</b> 2.68 lbs/gallon (321 grams/litre) <b>Thinned 2.5% (No. 2 or No. 3 Thinner):</b> 2.79 lbs/gallon (334 grams/litre) <b>Thinned 10% (No. 2 or No. 3 Thinner):</b> 3.10 lbs/gallon (371 grams/litre)
<b>HAPS</b>	<b>Unthinned:</b> 5.12 lbs/gal solids <b>Thinned 2.5%:</b> 5.41 lbs/gal solids (No. 2 Thinner); 5.13 lbs/gal solids (No. 3 Thinner) <b>Thinned 10%:</b> 6.27 lbs/gal solids (No. 2 Thinner); 5.16 lbs/gal solids (No. 3 Thinner)
<b>THEORETICAL COVERAGE</b>	1,011 mil sq ft/gal (24.8 m <sup>2</sup> /L at 25 microns). See APPLICATION for coverage rates.
<b>NUMBER OF COMPONENTS</b>	Two: Part A and Part B
<b>PACKAGING</b>	Four-Gallon and One-Gallon Kits: Consist of one premeasured container of liquid (Part A) and one premeasured container of powder (Part B). When mixed, yields four gallons (15.1L) or one gallon (3.79L).
<b>NET WEIGHT PER GALLON</b>	23.94 ± 0.60 lbs (10.86 ± .27 kg)
<b>STORAGE TEMPERATURE</b>	Minimum 20°F (-7°C) Maximum 110°F (43°C)
<b>TEMPERATURE RESISTANCE</b>	Dry (Continuous) 250°F (121°C) Intermittent 300°F (149°C)
<b>SHELF LIFE</b>	Part A: 12 months at recommended storage temperature. Part B: 24 months at recommended storage temperature.
<b>FLASH POINT - SETA</b>	Part A: 78°F (26°C) Part B: N/A
<b>HEALTH &amp; SAFETY</b>	Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product. <b>Keep out of the reach of children.</b>

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**APPLICATION**

**COVERAGE RATES**

	Dry MILS (MICRONS)	Wet MILS (MICRONS)	Sq Ft/Gal (m <sup>2</sup> /Gal)
Suggested	3.0 (75)	5.0 (125)	337 (31.3)
Minimum	2.5 (65)	4.0 (100)	404 (37.5)
Maximum	3.5 (90)	5.5 (140)	289 (26.9)

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.

**MIXING**

Always use the entire contents of A and B components. Use an air-driven power mixer and keep material under constant agitation while mixing. Slowly sift powder (Part B) into liquid (Part A).

**-Do Not Reverse This Procedure-** Adjust mixer speed to break up lumps and mix until the two components are thoroughly blended. Strain through a 35 to 50 mesh (300 to 600 microns) screen before using. For spray application, keep under low RPM agitation to prevent settling. For brush or roller application, stir frequently to prevent settling. Do not use mixed material beyond pot life limits.

**THINNING**

For spray, thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 Thinner if temperatures are below 80°F (27°C). Thin up to 10% or 3/4 pint (380 mL) per gallon with No. 3 Thinner if temperatures are above 80°F (27°C). For brush or roller, thin up to 10% or 3/4 pint (380 mL) with No. 3 Thinner.

**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**

**Note:** When finish coats are white or light colors, best hiding of this dark color primer can be achieved by spray application.

**Air Spray**

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA †	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	40-50 psi (2.8-3.4 bar)	10-20 psi (0.7-1.4 bar)

† (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**

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.017"-0.021" (430-535 microns) Reversible Tip	2400-3000 psi (165-207 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

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

Keep material agitated to prevent settling.

**Roller:** Use 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap roller covers. Stir material frequently or keep under agitation to prevent settling.

**Brush:** Use high quality natural or synthetic bristle brushes.

**SURFACE TEMPERATURE**

Minimum 35°F (2°C) Maximum 140°F (60°C) Maximum for Brush & Roller 120°F (49°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.

**AMBIENT HUMIDITY**

Minimum 20% Maximum 90%

**CLEANUP**

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

**CAUTION**

Dry overspray can be wiped or washed from most surfaces. Satisfactory dry-fall performance depends upon height of work, weather conditions and equipment adjustment. Low temperature is of particular concern. Test for each application as follows: Spray from 15 to 25 feet towards paint container. The material then should readily wipe off. **Note:** Heat can fuse-dry overspray to surfaces. Always clean dry overspray from hot surfaces before fusing occurs. Be aware that surface temperatures can be higher than air temperatures.

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