



# TNEME-ZINC 90-97 & H90-97

## PRODUCT PROFILE

**GENERIC DESCRIPTION** Aromatic Urethane, Zinc-Rich

**COMMON USAGE** 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. H90-97 is HAPS compliant for use in-shop.

**COLORS** 90-97 Reddish-gray

**ZINC DUST CONTENT** 83% by weight in dried film

**SPECIAL QUALIFICATIONS** Series 90-97/H90-97 meets **AISC** 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 dust which meets the requirements of **ASTM D 520 Type III** and contains less than .002% lead. This level qualifies it to be classed as "non-lead" (less than 0.06% lead by weight) as defined in Part 1303 of the Consumer Product Safety Act Regulations. Conforms to **SSPC Paint 20, Type II**.

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

## COATING SYSTEM

**TOPCOATS** Series 1, 6, 27, 46H-413, 66, L69, L69F, N69, N69F, V69, V69F, 73, 104, 113, 114, 115, 135, 161, 394, 1028, 1029, 1074, 1074U, 1075, 1075U  
**Note:** Certain topcoat colors may not provide one-coat hiding depending on method of application. Contact your Tnemec representative. **Note:** Series 90-97 or H90-97 must be exterior exposed for three days prior to topcoating with Series 1028 or 1029.

## 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

**VOLUME SOLIDS** 63.0 ± 2.0% (mixed)

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

**CURING TIME** 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. With 44-710: Reference the 44-710 Urethane Accelerator product data sheet.

## VOLITILE ORGANIC COMPOUNDS

|        | Unthinned                            | Thinned 2.5%<br>(No. 2 or 3 Thinner) | Thinned 10%<br>(No. 2 or 3 Thinner)  | Thinned 15%<br>(No. 62 Thinner)      |
|--------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 90-97  | 2.68 lbs/gallon<br>(321 grams/litre) | 2.79 lbs/gallon<br>(334 grams/litre) | 3.10 lbs/gallon<br>(371 grams/litre) |                                      |
| H90-97 | 2.83 lbs/gallon<br>(339 grams/litre) |                                      |                                      | 2.83 lbs/gallon<br>(339 grams/litre) |

## HAPS

|        | Unthinned            | Thinned 15% (No. 62 Thinner) |
|--------|----------------------|------------------------------|
| H90-97 | 0.02 lbs/gals solids | 0.02 lbs/gals solids         |

**THEORETICAL COVERAGE** 1,011 mil sq ft/gal (24.8 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates.

**NUMBER OF COMPONENTS** Two: Part A and Part B

**PACKAGING** 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).

**NET WEIGHT PER GALLON** 23.94 ± 0.60 lbs (10.86 ± .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** Part A: 12 months at recommended storage temperature.  
 Part B: 24 months at recommended storage temperature.

**FLASH POINT - SETA** 90-97 Part A: 78°F (26°C) H90-97 Part A: 108°F (42°C) Part B: N/A

**HEALTH & SAFETY** 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.  
**Keep out of the reach of children.**

# TNEME-ZINC | 90-97 & H90-97

**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**

**90-97:** 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.  
**H90-97:** For air spray, thin up to 15% per gallon with No. 62 Thinner. For airless spray, brush or roller, thin up to 10% per gallon with No. 62 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 (1)     | Pot Pressure               |
|--------------------|-----------|------------|----------------------------------|----------------------------------|----------------------------|----------------------------|
| DeVilbiss<br>JGA † | E         | 765 or 704 | 5/16" or 3/8"<br>(7.9 or 9.5 mm) | 3/8" or 1/2"<br>(9.5 or 12.7 mm) | 40-50 psi<br>(2.8-3.4 bar) | 10-20 psi<br>(0.7-1.4 bar) |

(1) Atomizing Pressure for H90-97 is 50-70 psi (3.4-4.8 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 (2)         | Mat'l Hose ID                   | Manifold Filter          |
|--|--------------------------------|---------------------------------|--------------------------|
| 0.017"-0.021"<br>(430-535 microns)<br>Reversible Tip | 2400-3000 psi<br>(165-207 bar) | 1/4" or 3/8"<br>(6.4 or 9.5 mm) | 60 mesh<br>(250 microns) |

(2) Atomizing Pressure for H90-97 is 3500-4500 (241-310 bar).  
 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 120°F (49°C) Maximum for Brush & Roller 100°F (38°C)  
 The surface should be dry and at least 5°F (3°C) above the dew point.

**AMBIENT HUMIDITY**

Minimum 40% 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.

WARRANTY & LIMITATION OF SELLER'S LIABILITY: Tnemec Company, Inc. warrants only that its coatings represented herein meet the formulation standards of Tnemec Company, Inc. THE WARRANTY DESCRIBED IN THE ABOVE PARAGRAPH SHALL BE IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. The buyer's sole and exclusive remedy against Tnemec Company, Inc. shall be for replacement of the product in the event a defective condition of the product should be found to exist and the exclusive remedy shall not have failed its essential purpose as long as Tnemec is willing to provide comparable replacement product to the buyer. NO OTHER REMEDY (INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR LOST PROFITS, LOST SALES, INJURY TO PERSON OR PROPERTY, ENVIRONMENTAL INJURIES OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL LOSS) SHALL BE AVAILABLE TO THE BUYER. Technical and application information herein is provided for the purpose of establishing a general profile of the coating and proper coating application procedures. Test performance results were obtained in a controlled environment and Tnemec Company makes no claim that these tests or any other tests, accurately represent all environments. As application, environmental and design factors can vary significantly, due care should be exercised in the selection and use of the coating.