



PRODUCT PROFILE

GENERIC DESCRIPTION

Aromatic Urethane, Zinc-Rich

COMMON USAGE

A single-component, moisture-cured, zinc-rich primer for steel structures, including the interior and exterior of steel potable water tanks. Commonly used in commercial, industrial, and marine markets in various applications to provide outstanding long-term corrosion resistance when used as a primer in conjunction with other Tnemec coatings. Series 94-H₂O has no maximum recoat time, cures quickly and offers rapid recoat at surface temperatures down to 35°F (2°C). **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

SPECIAL QUALIFICATIONS

Certified by **NSF International** in accordance with **NSF/ANSI/CAN Std. 61** and the extraction requirements of **NSF/ANSI/CAN 600**. Reference Tnemec's certified product listing at www.nsf.org for additional details.

Meets zinc-rich primer requirements of the latest edition of **AWWA D102 Standard for Inside System No. 3, 5, and 6** and **Outside System No. 3, 4, and 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.

Series 94-H₂O meets the requirements of LEED-Low-Emitting Materials, Collaborative for High-Performance Schools-Paints & Coatings, WELL Building Standard-VOC Restrictions, and Living Building Challenge-Healthy Interior Performance. Contact your Tnemec representative for more information.

This product is part of a coating system tested in accordance with ISO 12944-6 (2018). Contact your Tnemec representative for coating system test results.

COATING SYSTEM

TOPCOATS

Interior: Series 21, 22, FC22, L140, L140F, N140, N140F, 215, 406.
Exterior: Series 66, L69, L69F, N69, N69F, 73, 115, V115, 156, 161, 215, 1026, 1028, 1029, 1080, 1081, 1094, 1095, 1096.
Note: Certain topcoat colors may not provide one-coat hiding depending on the method of application. Contact your Tnemec representative. **Note:** Series 94-H₂O must be exterior exposed for three days prior to topcoating with Series 1028 or 1029.

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. **Note:** Reference the NSF website at www.nsf.org for details on the maximum allowable DFT.

CURING TIME

Temperature †	To Handle •	To Recoat •
75°F (24°C)	2 hours	8 hours
55°F (11°C)	4 hours	12 hours
35°F (2°C)	6 hours	16 hours

† 50% relative humidity. • Without the addition of No. 44-710 Urethane Accelerator.

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. **Note:** For faster curing, low humidity, and/or 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 product data sheet.

VOLATILE ORGANIC COMPOUNDS

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): 1.56 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): 2.84 lbs/gal solids

THEORETICAL COVERAGE

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

NUMBER OF COMPONENTS

One

PACKAGING

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

NET WEIGHT PER GALLON

24.92 ± 0.60 lbs (11.30 ± 0.27 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)

HEALTH & SAFETY

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.

HYDRO-ZINC MCU® | SERIES 94-H₂O

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	3.0 (75)	5.0 (125)	331 (30.8)
Minimum	2.5 (65)	4.0 (100)	398 (37.0)
Maximum	3.5 (90)	5.5 (140)	284 (26.4)

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 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.

THINNING

For air spray, thin up to 15% or 1 ¼ pints (570 mL) per gallon with No. 49 Thinner or thin up to 10% or ¾ pint (380 mL) per gallon with No. 2 Thinner. For brush or roller, thin up to 5% or ¼ pint (190 mL) per gallon with No. 49 Thinner or thin up to 10% or ¾ pint (380 mL) per gallon with No. 2 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 or No. 2 Thinner. Use of any other thinner voids NSF/ANSI/CAN 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

Note: When intermediate and finish coats are white or light colors, best hiding of this dark color primer can be achieved by spray application; or when roller applied, by using 1/4" nap covers.

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA †	E	704 or 765	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
0.015"-0.019" (380-481 microns) Reversible Tip	3000-4000 psi (207-276 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.

Roller: Use a 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap roller cover. 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. Please reference Technical Bulletin 98-14 for more information.

AMBIENT HUMIDITY

Minimum 20% Maximum 90%

CLEANUP

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

CAUTION

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

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.