



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-H<sub>2</sub>O 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](http://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-H<sub>2</sub>O uses a zinc pigment which meets the requirements of **ASTM D 520 Type III** and contains less than 0.002% lead.

Series 94-H<sub>2</sub>O 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-H<sub>2</sub>O 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](http://www.nsf.org) for details on the maximum allowable DFT.

CURING TIME

Without 44-710

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. **Note:** Refer to product listings on [www.nsf.org](http://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 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. 3 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. 3 Thinner):** 1.72 lbs/gal solids  
**Thinned 10% (No. 2 Thinner):** 2.84 lbs/gal solids

THEORETICAL COVERAGE

996 mil sq ft/gal (24.4 m<sup>2</sup>/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)

# HYDRO-ZINC® | SERIES 94-H<sub>2</sub>O

**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.**

**APPLICATION**

**COVERAGE RATES**

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m <sup>2</sup> /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](http://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 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 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 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-H<sub>2</sub>O certification is based on thinning with No. 49, No. 2 or No. 3 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 (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-H<sub>2</sub>O, with one-component configuration, prevents the product's ability to offer "dry-fall" characteristics.

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