

Series V140 conforms with air pollution regulations limiting Volatile Organic Compounds (VOC) to a maximum of 250 grams/litre (2.08 lbs/gal) In areas requiring less than 100 grams/litre VOC, please refer to the Series L140 data sheet.

PRODUCT PROFILE

GENERIC DESCRIPTION	Polyamidoamine Epoxy
COMMON USAGE	Innovative potable water coating which offers high-build edge protection and allows for application at a wide range of temperatures (down to 35°F or 2°C with 44-700 Accelerator). For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service.
COLORS	1211 Red Oxide, 1255 Beige, 11WH White, 15BL Tank White, 35GR Black and 39BL Delft Blue. Note: Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.
SPECIAL QUALIFICATIONS	Certified by NSF International in accordance with ANSI/NSF Std. 61 . Ambient air cured Series N140 (with or without 44-700 Epoxy Accelerator) is qualified for use on tanks and reservoirs of 1,000 gallons (3,785L) capacity or greater, pipes four (4) inches (10 cm) in diameter or greater and valves two (2) inches (5 cm) in diameter or greater. Series V140 is qualified for use on tanks of 20,000 gallons (75,708L) capacity or greater. Note: NSF certification for Series V140 applies to colors 1255 Beige and 15BL Tank White only. Conforms to AWWA D 102 Inside Systems No. 1 and No. 2 (with or without 44-700). Conforms to AWWA C 210 (without 44-700). Contact your Tnemec representative for systems and additional information.
PERFORMANCE CRITERIA	Extensive test data available. Contact your Tnemec representative for specific test results.



Certified to
ANSI/NSF 61

COATING SYSTEM

PRIMERS	Self-priming, 20, FC20, 91-H ₂ O, 94-H ₂ O, L140, L140F, N140F
TOPCOATS	Interior: Series L140, L140F, N140, N140F. Exterior: Series 27, 66, L69, L69F, N69, N69F, 73, L140, L140F, N140, N140F, 161, 180, 700, 701, 1074, 1075. Refer to COLORS on applicable topcoat data sheets for additional information. Note: When topcoating with Series 700, an intermediate coat of Series 73 or 1075 is required. Note: The following recoat times apply for Series N140: Immersion Service—Surface must be scarified after 60 days. Atmospheric Service—After 60 days, scarification or an epoxy tie-coat is required. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

STEEL	Immersion Service: SSPC-SP10/NACE 2 Near-White Blast Cleaning Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning
PRIMED STEEL	Immersion Service: Scarify the Series N140, 20 or FC20 prime coat surface by blasting with fine abrasive before topcoating if it has been exterior exposed for 60 days or longer and N140 is the specified topcoat.
CAST/DUCTILE IRON	Contact your Tnemec representative or Tnemec Technical Services.
CONCRETE	Allow new concrete to cure 28 days. For optimum results and/or immersion service, abrasive blast referencing SSPC-SP13/NACE 6 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide. Fill all holes, pits, voids and cracks with 63-1500 Filler and Surfer.
ALL SURFACES	Must be clean, dry and free of oil, grease and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS*	67.0 ± 2.0% (mixed—A, B & 44-700 Epoxy Accelerator)
RECOMMENDED DFT	2.0 to 10.0 mils (50 to 225 microns) per coat. Note: Number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME AT 5 MILS DFT
Without 44-700 Accelerator
With 44-700 Accelerator

Temperature	To Handle	To Recoat	Immersion
75°F (24°C)	6 hours	9 hours*	7 days
75°F (24°C)	4 hours	5 hours	7 days
65°F (18°C)	7-8 hours	9-11 hours	8 days
55°F (13°C)	12-14 hours	16-20 hours	9-10 days
45°F (7°C)	18-22 hours	28-32 hours	12-13 days
35°F (2°C)	28-32 hours	46-50 hours	16-18 days

Curing time varies with surface temperature, air movement, humidity and film thickness.

* When using **V140**, recoat time is 5 hours. **Note:** For valve applications allow 14 days cure at 75°F (24°C) prior to immersion. For pipe applications allow 30 days cure at 75°F (24°C) prior to immersion.

Ventilation: When used in enclosed areas, provide adequate ventilation during application and cure.

VOLATILE ORGANIC COMPOUNDS*	N140: Unthinned	Thinned 10%	V140: Unthinned	Thinned 2.5%
	2.37 lbs/gallon (284 grams/litre)	2.78 lbs/gallon (333 grams/litre)	1.95 lbs/gallon (234 grams/litre)	2.08 lbs/gallon (250 grams/litre)
HAPS	3.0 lbs/gal solids	3.8 lbs/gal solids	2.1 lbs/gal solids	2.3 lbs/gal solids
THEORETICAL COVERAGE*	1,070 mil sq ft/gal (27.2 m ² /L at 25 microns). See APPLICATION for coverage rates.			
NUMBER OF COMPONENTS	Two: Part A and Part B or Three: Part A, Part B and 44-700 Epoxy Accelerator			
PACKAGING	5 gallon (18.9L) pails and 1 gallon (3.79L) cans — Order in multiples of 2. Reference 44-700 Epoxy Accelerator product data sheet for its packaging information.			
NET WEIGHT PER GALLON*	N140: 12.63 ± 0.25 lbs (5.82 ± .11 kg) (mixed)		V140: 13.00 ± 0.25 lbs (5.90 ± .11 kg) (mixed)	

Published technical data and instructions are subject to change without notice. The online catalog at www.tnemec.com should be referenced for the most current technical data and instructions or you may contact your Tnemec representative for current technical data and instructions.

TECHNICAL DATA continued

STORAGE TEMPERATURE	Minimum 20°F (-7°C)	Maximum 110°F (43°C)
TEMPERATURE RESISTANCE	(Dry) Continuous 250°F (121°C)	Intermittent 275°F (135°C)
SHELF LIFE	24 months at recommended storage temperature.	
FLASH POINT - SETA	N140 & V140 Part A: 82°F (28°C)	N140 Part B: 80°F (27°C) V140 Part B: 86°F (30°C) 44-700: None
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.	

APPLICATION

COVERAGE RATES*

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	6.0 (150)	9.0 (230)	179 (16.6)
Minimum	2.0 (50)	3.0 (75)	537 (49.9)
Maximum	10.0 (225)	15.0 (375)	107 (10.0)

Note: Roller or brush application requires two or more coats to obtain recommended film thickness. 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

1. Start with equal amounts of both Parts A & B.
2. Using a power mixer, separately stir Parts A & B.
3. (For accelerated version. If not using 44-700, skip to No. 4.)
Add four (4) fluid ounces of 44-700 per gallon of Part A while Part A is under agitation.
4. Add Part A to Part B under agitation, stir until thoroughly mixed.
5. Both components must be above 50°F (10°C) prior to mixing. For application of the unaccelerated version to surfaces between 50°F to 60°F (10°C to 16°C) or the accelerated version to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand 30 minutes and restir before using.
6. For optimum application properties, the material temperature should be above 60°F (16°C).

Note: The use of more than the recommended amount of 44-700 will adversely affect performance.

POT LIFE

Without 44-700	15 hours at 50°F (10°C)	5 hours at 77°F (25°C)	3 hours at 100°F (38°C)
With 44-700	8 hours at 35°F (2°C)	4 hours at 77°F (25°C)	1 hour at 100°F (38°C)

THINNING

Use No. 4 Thinner. For air spray, thin up to 10% or ¼ pint (380 mL) per gallon. For airless spray, roller or brush, thin up to 5% or ¼ pint (190 mL) per gallon. **Caution:** Series N140 & V140 NSF certification is based on thinning with No. 4 Thinner. Use of any other thinner voids ANSI/NSF Std. 61 certification. **Note:** When using Series V140, a maximum of 2.5% of No. 4 Thinner may be used to comply with VOC regulations.

SURFACE TEMPERATURE

Without 44-700	Minimum 50°F (10°C)	Maximum 135°F (57°C)
With 44-700	Minimum 35°F (2°C)	Maximum 135°F (57°C)

The surface should be dry and at least 5°F (3°C) above the dew point. Coating won't cure below minimum surface temperature.

APPLICATION EQUIPMENT

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)	75-100 psi (5.2-6.9 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	1800-3000 psi (124-207 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.

Note: Application over inorganic zinc-rich primers: Apply a wet mist coat and allow tiny bubbles to form. When bubbles disappear in 1 to 2 minutes, apply a full wet coat at specified mil thickness.

Roller: Roller application optional when environmental restrictions do not allow spraying. Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap roller covers.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

CLEANUP

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

*Values may vary with color.

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. **FOR INDUSTRIAL USE ONLY.**