



# EPOXOLINE SERIES 141

## PRODUCT PROFILE

- GENERIC DESCRIPTION** Modified Polyamine Epoxy
- COMMON USAGE** High solids coating which offers high-build edge protection and excellent corrosion resistance. For use on the interior and exterior of steel or concrete tanks, reservoirs, pipes, valves, pumps and equipment in potable water service as well as other steel and concrete substrates.
- COLORS** **ANSI/NSF Std. 61 colors:** 1211 Red, 1255 Beige, 33GR Gray, 35GR Black and WH03 Off-White. **Note:** Other colors may be available for non-potable water applications. Contact your Tnemec representative. Minimum order requirements may apply. **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 **NSF/ANSI Std. 61**. Ambient air cured Series 141 is qualified for use on tanks and reservoirs of 1,000 gallons (3,785L) capacity or greater, pipes ten (10) inches (25 cm) in diameter or greater and valves two (2) inches (5 cm) in diameter or greater. A one coat application is to be used with pipes 10" and greater and for valves 2" and greater. A two to three coat application is to be used with pipes 4" and greater and for valves 2" and greater. Conforms to **AWWA D 102 Inside Systems No. 1 and No. 2**. Conforms to **AWWA C 210**. Contact your Tnemec representative for systems and additional information. Reference the "Search Listings" section of the NSF website at [www.nsf.org](http://www.nsf.org) for details on the maximum allowable DFT.
- PERFORMANCE CRITERIA** Extensive test data available. Contact your Tnemec representative for specific test results.

## COATING SYSTEM

- PRIMERS** **Steel:** Self-priming, 1, 20, FC20, 27, 37H, L69, L69F, N69, N69F, V69, V69F, 90-E92, 90-97, 91-H<sub>2</sub>O, 94-H<sub>2</sub>O, 135, L140, L140F, N140, N140F, V140, V140F, 394, 530  
**Concrete:** Self-priming, 20, FC20, 27, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140, V140F, 215, 218  
**CMU:** Self-priming or Series 130, 215, 218, 1254
- TOPCOATS** **Exterior:** Series 73, 180, 740, 750, 1074, 1074U, 1075, 1075U, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following maximum recoat time applies when using Series 73, 180, 740, 750, 1074, 1074U, 1075, 1075U, 1080 or 1081: thirty (30) days. If this time limit is exceeded, Series 141 must be uniformly scarified prior to topcoating.

## SURFACE PREPARATION

- PRIMED STEEL** **Immersion Service:** Scarify the Series 20, FC20, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140 or V140F prime coat surface by brush-blasting with fine abrasive before topcoating if it has been exterior exposed for 30 days or longer and 141 is the specified topcoat.
- STEEL** **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 2.0 mils  
**Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 2.0 mils
- CONCRETE** Allow to cure for 28 days. Abrasive blast referencing SSPC-SP13/NACE 6, ICRI CSP 3-5 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide.
- ALL SURFACES** Must be clean, dry and free of oil, grease, chalk and other contaminants.

## TECHNICAL DATA

- VOLUME SOLIDS** 82% ± 2.0% (mixed) †
- RECOMMENDED DFT** 4.0 to 18.0 mils (100 to 455 microns) in one coat. **Note:** Thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative. Maximum dry film thickness for NSF exposure is 18.0 mils.

### CURING TIME AT 5 MILS DFT

Temperature	To Handle	To Recoat	Immersion
90°F (32°C)	3 hours	4 hours	7 days
75°F (24°C)	4 hours	5 hours	7 days
65°F (18°C)	7 hours	9 hours	8 days
55°F (11°C)	13 hours	18 hours	9 days
45°F (7°C)	20 hours	30 hours	13 days
40°F (4°C)	22 hours	42 hours	18 days

Curing time varies with surface temperature, air movement, humidity and film thickness.  
**Note:** For one-coat pipe and valve applications, allow 30 days cure at 75°F (24°C) prior to immersion.

### VOLITILE ORGANIC COMPOUNDS

EPA Method 24  
**Unthinned:** 0.52 lbs/gallon (63 grams/litre)  
**Thinned 4%:** 0.75 lbs/gallon (90 grams/litre)  
**Thinned 10%:** 1.27 lbs/gallon (153 grams/litre) †

### HAPS

**Unthinned:** 1.3 lbs/gal solids  
**Thinned 5%:** 1.6 lbs/gal solids  
**Thinned 10%:** 1.9 lbs/gal solids

### THEORETICAL COVERAGE

1,315 mil sq ft/gal (32.2 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates. †

### NUMBER OF COMPONENTS

Two: Part A (amine) and Part B (epoxy)

### MIXING RATIO

By volume: Two (Part A) to one (Part B)

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**PACKAGING**

	PART A (Partially Filled)	PART B (Partially Filled)	When Mixed
Large Kit	1-6 gallon pail	1-3 gallon pail	5 gallons
Small Kit	1-1 gallon can	1-1 gallon can	1 gallon

**NET WEIGHT PER GALLON**

13.33 ± 0.25 lbs (6.05 ± .11 kg) †

**STORAGE TEMPERATURE**

Minimum 20°F (-7°C) Maximum 110°F (43°C)

Prior to application, the material temperature should be above 60°F (16°C). It is suggested the material be stored at this temperature at least 48 hours prior to use.

**TEMPERATURE RESISTANCE**

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

**SHELF LIFE**

12 months at recommended storage temperature.

**FLASH POINT - SETA**

Part A: 91°F (33°C) Part B: 111°F (44°C)

**HEALTH & SAFETY**

This product contains 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 <sup>2</sup> /Gal)
Minimum	4.0 (100)	5.0 (125)	329 (30.5)
Maximum	18.0 (455)	22.0 (560)	73 (6.8)

**Note:** Maximum of 18.0 mils DFT in one coat. **Maximum total dry film thickness for NSF exposure is 18.0 mils.** 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](http://www.nsf.org) for details on the maximum allowable DFT. †

**MIXING**

Mix the entire contents of Part A and Part B separately. Scrape all of the Part B into the Part A pail by using a flexible spatula. Use a variable speed drill with a PS Jiffy blade and mix the blended components for a minimum of two minutes. Apply the mixed material within pot life limits after agitation. Both components must be above 50°F (10°C) prior to mixing. For optimum application properties, the material temperature should be above 60°F (16°C). For applications to surfaces between 40°F to 50°F (4°C to 10°C) allow mixed material to stand 30 minutes and restir before use. **Note:** A large volume of material will set up quickly if not applied or lessened in mass. **Caution: Do not reseal mixed material. An explosion hazard may be created.**

**THINNING**

**Caution: Do not add thinner to Part A prior to mixing with Part B.** Use No. 4 Thinner. For airless spray, roller or brush, thin up to 4% per gallon. For air spray, thin up to 10% per gallon. To comply with SCAQMD VOC regulations, maximum thinning is 4%. **Caution: Series 141 NSF certification is based on thinning with No. 4 Thinner. Use of any other thinner voids ANSI/NSF Std. 61 certification.**

**POT LIFE**

2 hours at 77°F (21°C) 1 hour at 90°F (32°C)

**SPRAY LIFE**

1 hour at 77°F (21°C) 30 minutes at 90°F (32°C)

**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
0.017"-0.021" (430-535 microns)	3000-3800 psi (207-262 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:** 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 covers.

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

**SURFACE TEMPERATURE**

Minimum 40°F (4°C) Maximum 135°F (57°C)

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

**CLEANUP**

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

† Values may vary with color.

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