



# HI-BUILD EPOXOLINE II N69F or V69F

## PRODUCT PROFILE

**GENERIC DESCRIPTION** Polyamidoamine Epoxy

**COMMON USAGE** An advanced generation epoxy for the protection and finishing of steel and concrete. It has excellent resistance to abrasion and is suitable for immersion as well as chemical contact exposure. Contact your local Tnemec representative for a list of chemicals. This product can also be used as a block filler on cementitious or masonry substrates. **Note:** Series V69F 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 L69F data sheet.

**COLORS** Limited color availability. Contact your Tnemec representative.

**FINISH** Satin

## COATING SYSTEM

**PRIMERS** **Steel:** Self-priming or Series 1, 27, 37H, 66, L69, L69F, N69, V69, 90E-92, 90G-1K97, 90-97, H90-97, 90-98, 91-H<sub>2</sub>O, H91-H<sub>2</sub>O, 94-H<sub>2</sub>O, 135, 161, 394, 530  
**Galvanized Steel and Non-Ferrous Metal:** Self-priming or Series 66, L69, L69F, N69, V69, 161  
**Concrete:** Self-priming or Series 130, 215, 218  
**CMU:** Self-priming or Series 130, 215, 218, 1254

**TOPCOATS** 22, 46H-413, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, 84, 104, 113, 114, 141, 156, 157, 161, 175, 180, 181, 287, 446, 740, 750, 1028, 1029, 1070, 1070V, 1071, 1071V, 1072, 1072V, 1074, 1074U, 1075, 1075U, 1077, 1078, 1080, 1081. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** The following recoat times apply for Series N69F/V69F: Immersion Service—Surface must be scarified after 30 days. Atmospheric Service—After 30 days, scarification or an epoxy tie-coat is required. Contact your Tnemec representative for specific recommendations.

## SURFACE PREPARATION

**PRIMED STEEL** **Immersion Service:** Scarify the epoxy prime coat surface by abrasive blasting with fine abrasive before topcoating if it has been exterior exposed for 30 days or longer and N69F/V69F is the specified topcoat.

**STEEL** **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils.  
**Non-Immersion Service:** SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

**GALVANIZED STEEL & NON-FERROUS METAL** Surface preparation recommendations will vary depending on substrate and exposure conditions. Contact your Tnemec representative or Tnemec Technical Services.

**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, ICRI CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide.

**CMU** Allow mortar to cure for 28 days. Level protrusions and mortar spatter.

**PAINTED SURFACES** **Non-Immersion Service:** Ask your Tnemec representative for specific recommendations.

**ALL SURFACES** Must be clean, dry and free of oil, grease, chalk and other contaminants.

## TECHNICAL DATA

**VOLUME SOLIDS** 69.0 ± 2.0% (mixed) †

**RECOMMENDED DFT** 2.0 to 10.0 mils (50 to 255 microns) per coat. **Note:** The number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

### CURING TIME AT 5 MILS DFT

Temperature	To Handle	To Recoat	Immersion
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.

### VOLATILE ORGANIC COMPOUNDS

**N69F**  
**Unthinned:** 2.30 lbs/gallon (280 grams/litre)  
**Thinned 10% (No. 4 Thinner):** 2.75 lbs/gallon (330 grams/litre)  
**Thinned 10% (No. 60 Thinner):** 2.76 lbs/gallon (331 grams/litre)

**V69F**  
**Unthinned:** 1.90 lbs/gallon (228 grams/litre)  
**Thinned 3.5% (No. 4 Thinner):** 2.08 lbs/gallon (250 grams/litre) †

### HAPS

**N69F**  
**Unthinned:** 2.35 lbs/gal solids  
**Thinned 10% (No. 4 Thinner):** 3.20 lbs/gal solids  
**Thinned 10% (No. 60 Thinner):** 2.35 lbs/gal solids

**V69F**  
**Unthinned:** 2.00 lbs/gal solids  
**Thinned 3.5% (No. 4 Thinner):** 2.20 lbs/gal solids

**THEORETICAL COVERAGE** 1,107 mil sq ft/gal (27.2 m<sup>2</sup>/L at 25 microns). See APPLICATION for coverage rates. †

**NUMBER OF COMPONENTS** Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

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<b>PACKAGING</b>	5 gallon (18.9L) pails - Order in multiples of 2.
<b>NET WEIGHT PER GALLON</b>	N69F: 13.34 ± 0.25 lbs (6.10 ± .11 kg) (mixed)    V69F: 13.90 ± 0.25 lbs (6.31 ± .11 kg) (mixed) †
<b>STORAGE TEMPERATURE</b>	Minimum 20°F (-7°C)    Maximum 110°F (43°C)
<b>TEMPERATURE RESISTANCE</b>	(Dry) Continuous 250°F (121°C)    Intermittent 275°F (135°C)
<b>SHelf LIFE</b>	Part A: 24 months; Part B: 12 months at recommended storage temperature.
<b>FLASH POINT - SETA</b>	N69F & V69F Part A: 82°F (28°C)    N69F Part B: 93°F (34°C)    V69F Part B: 86°F (30°C)
<b>HEALTH &amp; SAFETY</b>	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. <b>Keep out of the reach of children.</b>

## APPLICATION

### COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m <sup>2</sup> /Gal)
Suggested (1)	6.0 (150)	9.0 (230)	184 (17.1)
Minimum	2.0 (50)	3.0 (75)	553 (51.4)
Maximum	10.0 (250)	15.0 (375)	111 (10.3)

**Dense Concrete & Masonry:** From 100 to 150 sq ft (9.3 to 13.9 m<sup>2</sup>) per gallon.

**CMU:** From 75 to 100 sq ft (7.0 to 9.3 m<sup>2</sup>) per gallon.

**(1) Note for Steel:** Roller or brush application requires two or more coats to obtain recommended film thickness. Also, Series N69F can be spray applied to an optional high-build film thickness range of 8.0 to 10.0 dry mils (205 to 255 dry microns) or 11.5 to 14.5 wet mils (209 to 370 wet microns). 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

1. Start with equal amounts of both Parts A & B.
2. Using a power mixer, separately stir Parts A & B.
3. Add Part A to Part B under agitation, stir until thoroughly mixed.
4. Both components should be above 50°F (10°C) prior to mixing. For application to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand thirty (30) minutes and restir before using. For optimum application properties, blended components should be above 60°F (16°C).

### THINNING

Use No. 4 or No. 60 Thinner. For air spray, thin up to 10% or 3/4 pint (380 mL) per gallon. For airless spray, roller or brush, thin up to 5% or 1/4 pint (190 mL) per gallon. **Note:** When using Series V69F, a maximum of 3.5% of No. 4 Thinner may be used to comply with VOC regulations.

### POT LIFE

4 hours at 50°F (10°C)    2 hours at 75°F (24°C)    1 hour at 100°F (38°C)

### SPRAY LIFE

30 minutes at 75°F (24°C)

**Note:** Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

### 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)	3000-4800 psi (207-330 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.

• Spray application of first coat on CMU should be followed by backrolling.

**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:** Use 3/8" or 1/2" (9.5 mm or 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.

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

### SURFACE TEMPERATURE

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 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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