TNEMEC

PRODUCT DATA SHEET

HI-BUILD EPOXOLINE® SERIES 66HS

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamide Epoxy

COMMON USAGE A high-solids, low VOC, pure polyamide epoxy that offers exceptional protection to a variety of substrates in atmospheric and immersion environments. Applied as a primer, intermediate, or topcoat, this versatile coating also accepts a wide-range of finish coats, allowing for a coating system tailored to specific exposure conditions.

COLORS Refer to Tnemec Color Guide. **Note:** Epoxies chalk with extended exposure to sunlight and may yellow on aging. 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 accelerate any potential yellowing. **Note:** Special color bases are recommended for immersion service. Contact your Tnemec representative for more information.

FINISH Satin

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS **Steel:** Self-priming or Series 1, 20HS, FC20HS, 27, 27WB, 90-97, 90-98, 90E-92, 90G-1K97, 91-H_2O, 94-H_2O, 394, V530, 161HS
Concrete: Self-priming, 20HS, FC20HS, 161HS
CMU: Self-priming, 130, 1254

TOPCOATS 46H-413, 27WB, 30, 66HS, 72, 73, 104, 113, 114, 115, 141, 161HS, 262, 265, 290, 291, 740, 750, 1026, 1028, 1029, 1070, 1070V, 1071, 1071V, 1072, 1072V, 1074, 1074U, 1075, 1075U, 1080, 1081, 1095. Refer to COLORS on applicable topcoat data sheets for additional information. **Note:** When topcoating Series 66HS, the following maximum recoat times apply: with 262 or 265, 7 days; with 740 or 750, 21 days; with 1095, 30 days; with itself, 46H-413, 27WB, 104, 113, 114, 141, 161HS, 290, 291, 1028, 1029, 1070, 1070V, 1071, 1071V, 1072, 1072V, 1080 or 1081, 60 days; with 72, 73, 1074, 1074U, 1075 or 1075U, 90 days. Scarify the Series 66HS surface before topcoating if maximum recoat time has elapsed.

SURFACE PREPARATION

PRIMED STEEL **Immersion Service:** Scarify the epoxy prime coat surface by abrasive-blasting with a fine abrasive before topcoating if more than 60 days has elapsed since initial application.

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Note:** Commercial Blast Cleaning generally produces the best coating performance for this exposure. If conditions will not permit this, in moderate exposures Series 66HS may be applied to SSPC-SP2 or SP3 Hand or Power Tool Cleaned surfaces (SSPC Rust Grade Condition C).

GALVANIZED STEEL & NON-FERROUS METAL Surface preparation recommendations will vary depending on substrate and exposure conditions. Consult the latest version of Tnemec Technical Bulletin 10-78 or 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 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide.

CMU Allow mortar to cure for 28 days. Prepare in accordance with SSPC-SP13/NACE 6 to level protrusions and mortar spatter and remove other contaminants.

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

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

TECHNICAL DATA

VOLUME SOLIDS 78% ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 10.0 mils (50 to 254 microns) per coat.
Note: Number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

CURING TIME

Temperature	To Touch	To Handle	To Recoat	Immersion
95°F (35°C)	1 hour	3 hours	6-7 hours	7 days
75°F (24°C)	2 hours	8 hours	12-16 hours	7 days
55°F (13°C)	4 hours	22-24 hours	30-34 hours	12-14 days

Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster curing and low temperature applications, add No. 44-705 Epoxy Accelerator, see separate product data sheet for cure information.
Ventilation: When used as a tank lining or in enclosed areas, provide adequate ventilation during application and cure.

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 1.54 lbs/gallon (184 grams/litre)
Thinned 10% (No. 4 Thinner): 2.02 lbs/gallon (243 grams/litre)
Thinned 20% (No. 4 Thinner): 2.43 lbs/gallon (292 grams/litre)

HAPS **Unthinned:** 1.17 lbs/gal solids
Thinned 10% (No. 4 Thinner): 1.88 lbs/gal solids
Thinned 20% (No. 4 Thinner): 2.60 lbs/gal solids

THEORETICAL COVERAGE 1,249 mil sq ft/gal (30.7 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A (epoxy) and Part B (polyamide)

MIXING RATIO One (Part A) to one (Part B) by volume.

HI-BUILD EPOXOLINE® | SERIES 66HS

PACKAGING

	Part A	Part B	Yield (mixed)
Large Kit	6 gallon pail (partially filled)	5 gallon pail	10 gallons (37.9 L)
Small Kit	1 gallon can	1 gallon can	2 gallons (7.57 L)

NET WEIGHT PER GALLON 13.11 lbs ± 0.25 lbs (5.95 ± .11 kg) (mixed) †

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 Part A: 24 months; Part B: 24 months at recommended storage temperature.

FLASH POINT - SETA Part A: 85°F (29°C) Part B: 105°F (41°C)

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 (m²/Gal)
Suggested	5.0 (125)	6.5 (165)	250 (23.2)
Minimum	2.0 (50)	2.5 (65)	626 (58.1)
Maximum	10.0 (254)	13.0 (330)	125 (11.6)

Note: Roller or brush application may require two or more coats to obtain recommended film thickness. 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 Power mix contents of each container, making sure no pigment remains on the bottom. Pour a measured amount of Part B into a clean container large enough to hold both components. Add an equal volume of Part A to Part B while under agitation. Continue agitation until the two components are thoroughly mixed. If using Series 44-705 accelerator, slowly add three (3) fluid ounces per gallon of the Series 66HS material while under agitation. **Note:** The use of more than the recommended amount of 44-705 will adversely affect performance.

Thin by volume and thoroughly mix. Failure to thoroughly mix the Part A and Part B components prior to thinning can affect product's gloss and performance. Do not use mixed material beyond pot life limits. **Note:** For applications between 50°F to 60°F (10°C to 16°C), allow mixed material to stand thirty (30) minutes and restir before using. To avoid this induction time, both components should be above 60°F (16°C) prior to mixing. Mixing ratio is one to one by volume.

THINNING For air, airless spray, roller or brush applications thin up to 10% or 12.8 ounces (380 mL) per gallon with No. 4 Thinner. For a finer finish, thin up to 20% or 25.6 ounces (760 mL) per gallon with No. 4 Thinner.

POT LIFE & SPRAY LIFE

10% Thinning

Temperature	Pot Life	Spray Life
95°F (35°C)	2 hours	75 minutes
75°F (24°C)	2.5 hours	1.5 hours
55°F (13°C)	4 hours	1.5 hours

20% Thinning

Temperature	Pot Life	Spray Life
95°F (35°C)	3 hours	1.5 hours
75°F (24°C)	4 hours	2 hours
55°F (13°C)	5 hours	2 hours

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)	50-80 psi (3.4-5.5 bar)	20-25 psi (1.4-1.7 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.021" (380-530 microns)	3000-4500 psi (207-310 bar)	3/8" or 1/2" (9.5 or 12.7 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
Note: A minimum pump size of 45:1 is required for proper airless spray application.
Roller: Use 3/8" or 1/2" (9.5 mm to 12.7 mm) high quality synthetic woven nap covers.
Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE Minimum 50°F (10°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 No. 4 thinner or MEK.

† Values may vary with color.

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