TNEMEC

PRODUCT DATA SHEET

HI-BUILD TNEME-TAR® SERIES 46H-413

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamide Epoxy-Coal Tar

COMMON USAGE High-build corrosion resistant coating providing one coat protection for concrete and steel in a variety of chemical, immersion and underground conditions. Also, when a two-coat application is desired, a low film build option is possible.

COLORS Black

FINISH Semi-gloss

SPECIAL QUALIFICATIONS Conforms to the performance requirements of AWWA C 210 (not for potable water contact).

PERFORMANCE CRITERIA Extensive test data available. Contact your Tnemec representative for specific test results.

COATING SYSTEM

PRIMERS
Steel: Self-priming or Series 1, 66, N69, N69F, 90-97, H90-97, 161
Galvanized Steel: Series 66, N69, N69F, 161
Concrete: Self-priming, 63-1500, 218

SURFACE PREPARATION

STEEL
Immersion Service: SSPC-SP10 Near-White Blast Cleaning
Non-Immersion Service: SSPC-SP6 Commercial Blast Cleaning

GALVANIZED STEEL 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 for 28 days. Abrasive blast all surfaces referencing SSPC-SP13/NACE 6, ICRI CSP 2-4 Surface Preparation of Concrete and Tnemec's Surface Preparation and Application Guide.

PRIMED SURFACES **Immersion Service:** Scarify the surface with fine abrasive before topcoating if the Series 66, N69 or 161 prime coat has been exposed to sunlight for 60 days or longer.

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

TECHNICAL DATA

VOLUME SOLIDS 75.0 ± 2.0% (mixed)

RECOMMENDED DFT 16.0 to 20.0 mils (405 to 510 microns)
8.0 to 10.0 mils (200 to 250 microns) for the two-coat option

CURING TIME

Temperature	To Touch	To Recoat (Min./Max)	Immersion
95°F (35°C)	2 hours	3-14 hours	5 days
85°F (29°C)	3 hours	4-18 hours	6 days
75°F (24°C)	4 hours	6-28 hours	7 days
65°F (18°C)	6 hours	10-50 hours	10 days
55°F (13°C)	9 hours	16 hrs-3 days	14-16 days
45°F (7°C)	18 hours	32 hrs-4 days	22-24 days
35°F (2°C)	26 hours	44 hrs-6 days	28-32 days

Curing time varies with surface temperature, air movement, humidity and film thickness.
Use the above times as guidelines only. Scarify the surface with fine abrasive before recoating if the maximum recoat time has been exceeded.

VOLATILE ORGANIC COMPOUNDS
Unthinned: 1.91 lbs/gallon (229 grams/litre)
Thinned 20% (No. 2 Thinner): 2.80 lbs/gallon (335 grams/litre)
Thinned 20% (No. 65 Thinner): 1.91 lbs/gallon (229 grams/litre)

THEORETICAL COVERAGE 1,203 mil sq ft/gal (29.5 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS Two: Part A and Part B

MIXING RATIO By volume: One (Part A) to one (Part B)

PACKAGING 5 gallon (18.9L) pails and 1 gallon (3.79L) cans — Order in multiples of 2.

NET WEIGHT PER GALLON 11.74 ± 0.25 lbs (5.32 ± .11 kg) (mixed)

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

TEMPERATURE RESISTANCE (Dry) Continuous 200°F (93°C) Intermittent 250°F (121°C)

SHELF LIFE 12 months at recommended storage temperature.

FLASH POINT - SETA Parts A & B: 81°F (27°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.

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APPLICATION

COVERAGE RATES

Conventional Build

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	18.0 (455)	24.0 (610)	69 (6.4)
Minimum	16 (405)	21.5 (545)	75 (7.0)
Maximum	20.0 (510)	27.0 (685)	59 (5.5)

Two-Coat System (DFT each coat)

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	9.0 (225)	12.0 (300)	134 (12.5)
Minimum	8.0 (200)	11.0 (275)	150 (14.0)
Maximum	10.0 (250)	13.0 (325)	120 (11.2)

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. Do not use mixed material beyond pot life limits. **Note:** 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, the material temperature should be above 60°F (16°C).

THINNING

Use No. 2 Thinner. For air spray, thin up to 20% or 1 1/2 pints (760 mL) per gallon; for airless spray, thin up to 5% or 1/4 pint (190 mL) per gallon. A maximum of 20% of No. 65 Thinner may be used to comply with VOC regulations.

POT LIFE

16 hours at 35°F (2°C) 6 hours at 55°F (13°C) 2 hours at 75°F (24°C) 3/4 hour at 95°F (35°C)

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E .070"	704 or 765	5/16" or 3/8" (7.9 or 9.5 mm)	1/2" (12.7 mm)	75-100 psi (5.2-6.9 bar)	20-40 psi (1.4-2.8 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" (430-530 microns)	3400-4000 psi (234-276 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: 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.
Brush: Brushing is recommended on small areas only. Ladle material on and then use flat side of brush to spread. Do not brush out to thin film as with conventional coatings.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 120°F (49°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.

CLEANUP

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