



PRODUCT PROFILE

GENERIC DESCRIPTION Aliphatic Acrylic Polyurethane

COMMON USAGE A user friendly, low VOC, aliphatic polyurethane coating that provides excellent color and gloss retention for exterior applications to steel, concrete and other miscellaneous substrates.

COLORS Refer to Tnemec Color Guide. **Note:** Certain colors may require multiple coats depending on method of application and finish coat color. When feasible, the preceding coat should be in the same color family, but noticeably different.

FINISH Gloss

COATING SYSTEM

PRIMERS **Steel:** Series 1, 27, 27WB, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, 90G-1K97, 91-H₂O, 94-H₂O, 135, L140, L140F, N140, N140F, V140, V140F, 161, 394, 1224
Galvanized Steel & Non-Ferrous Metal: 27, 66, L69, L69F, N69, N69F, V69, V69F, 161
Concrete: Series 27WB, 66, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140, V140F, 161, 1224, 1254
CMU: Series 1254
Note: The following maximum recoat times apply; Series L69F or L140F, 14 days; Series L69 or L140, 21 days; Series 1, 27, 27WB, 66, N69, N69F, V69, V69F, 135, N140, N140F, V140, V140F, 161, 394, 1224, 1254, 30 days; Series 90-97, 91-H₂O, 90G-1K97, 94-H₂O, 60 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

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

TECHNICAL DATA

VOLUME SOLIDS 60.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 5.0 mils (51 to 127 microns) per coat. **Note:** Number of coats and thickness requirements will vary with substrate, application method and exposure.

CURING TIME

Temperature	To Touch	To Handle	To Recoat
75°F (24°C)	1-2 hours	9 hours	10-12 hours

To resist moisture: 8 hours. Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster cure in temperatures down to 35°F (2°C), add No. 44-456 Urethane Accelerator, see separate product data sheet for cure information. **Note:** The use of Series 44-456 accelerator is not recommended when temperatures exceed 75°F (24°C).

VOLATILE ORGANIC COMPOUNDS **Unthinned:** 2.16 lbs/gal (259 grams/litre)
Unthinned: 0.63 lbs/gal (75 grams/litre) (TBAC Exempt)
Thinned 10% (No. 10 Thinner): 2.77 lbs/gal (332 grams/litre)
Thinned 10% (No. 10 Thinner): 1.60 lbs/gal (191 grams/litre) (TBAC Exempt)
Thinned 10% (No. 46 Thinner): 2.20 lbs/gal (263 grams/litre)
Thinned 10% (No. 46 Thinner): 0.69 lbs/gal (82 grams/litre) (TBAC Exempt)

HAPS **Unthinned:** 0.0 lbs/gallon solids
Thinned 10% (No. 10 Thinner): 0.03 lbs/gallon solids
Thinned 10% (No. 46 Thinner): 0.07 lbs/gallon solids

THEORETICAL COVERAGE 964 mil sq ft/gal (89.5 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A and Part B

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

	PART A (Partially filled)	PART B (Partially filled)	Yield (Mixed)
Large Kit	6 gallon pail	1 gallon can	5 gallons (18.9L)
Small Kit	1 gallon can	1 quart can	1 gallon (3.79L)

NET WEIGHT PER GALLON 10.86 ± 0.25 lbs (4.92 ± .11 kg) †

STORAGE TEMPERATURE Minimum 40°F (4°C) Maximum 110°F (43°C)

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

SHELF LIFE Part A: 12 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 45°F (7°C) Part B: 40°F (4°C)

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

ENDURA-SHIELD® | SERIES 1094

APPLICATION

COVERAGE RATES

Conventional Build (Spray, Brush or Roller)

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	2.5 (65)	4.0 (100)	385 (35.8)
Minimum	2.0 (50)	3.5 (90)	481 (44.7)
Maximum	3.0 (75)	5.0 (130)	321 (29.8)

Hi-Build (Spray Only)

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	4.0 (100)	6.5 (165)	240 (22.4)
Minimum	3.0 (75)	5.0 (130)	321 (29.8)
Maximum	5.0 (125)	8.5 (215)	193 (17.9)

Note: Coverage rates based on unthinned material. Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. †

MIXING

Stir contents of the container marked Part A, making sure no pigment remains on the bottom. If using Series 44-456 accelerator, slowly add two (2) ounces of Series 44-456 per mixed gallon of Series 1094 while under agitation. **Note:** The use of more than the recommended amount of Series 44-456 accelerator will adversely affect performance.

Add the contents of the container marked Part B to Part A while under mechanical agitation. Continue agitation until the two components are thoroughly mixed. Do not use mixed material beyond pot life limits. **Caution: Part B is moisture-sensitive and will react with atmospheric moisture. Keep unused material tightly closed at all times. Do not reseal mixed material. An explosion hazard may be created.**

THINNING

Thinning is required for proper application. Use No. 10 Thinner. For air spray, airless spray, brush or roller, thin up to 10% or 12 ounces (354 mL) per gallon. **Note:** In areas that require lower VOC, use No. 46 Thinner.

POT LIFE

Without 44-456: 4 hours at 75°F (24°C)

With 44-456: 5 hours at 35°F (2°C) 4 hours at 55°F (13°C) 3 hours at 75°F (24°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)	50-80 psi (3.4-5.5 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
0.013"-0.017" (330-430 microns)	2700-3500 psi (186-241 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: Use 1/4" or 3/8" (6.4 mm or 9.5 mm) high quality synthetic woven nap roller cover. Do not use medium or long nap roller covers. Two coats are required to obtain dry film thickness above 3.0 mils (75 microns).

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes. Two coats are required to obtain recommended film thickness.

SURFACE TEMPERATURE

Minimum 40°F (4°C) Maximum 120°F (49°C)

The surface should be dry and at least 5°F (3°C) above the dew point.

Cure time necessary to resist direct contact with moisture at a surface temperature of 75°F (24°C) is 8 hours.

CLEANUP

Flush and clean all equipment immediately after use with xylene or MEK. Use Tnemec No. 74 Thinner when needed to comply with VOC regulations.

† Values may vary with color.

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