



ENDURA-SHIELD® II SERIES 1074U

PRODUCT PROFILE

GENERIC DESCRIPTION Aliphatic Acrylic Polyurethane

COMMON USAGE A coating highly resistant to abrasion, wet conditions, corrosive fumes and exterior weathering. High build quality combines with project specific primers for two-coat, labor saving systems. Contains a blend of ultra-violet light (UV) absorbers for enhanced color and gloss retention. Fast curing options are available; see Curing Time below. NOT FOR IMMERSION SERVICE.

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

SPECIAL QUALIFICATIONS Series 1074U meets the requirements of SSPC-36 (level 3) Paint Standard.

PERFORMANCE CRITERIA Contact your Tnemec representative for specific test results.

COATING SYSTEM

PRIMERS **Steel:** Series 1, 20, FC20, 27, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, 91-H₂O, 94-H₂O, 104, 135, L140, L140F, N140, N140F, V140, V140F, 161, 394, 530
Galvanized Steel and Non-Ferrous Metal: Series 27, 66, L69, L69F, N69, N69F, V69, V69F, 135, 161
Concrete: Series 66, L69, L69F, N69, N69F, V69, V69F, 84, 104, 161
CMU: 54-660, 130. Intermediate coat required.
Note: Before topcoating with Series 1074U, Series 530 exterior exposed for more than 24 hours must first be scarified or receive an intermediate coat of Tnemec polyamide epoxy. Recoat windows for other primers may apply. See those data sheets for additional information.

SURFACE PREPARATION

ALL SURFACES Must be clean, dry and free of oil, grease and other contaminants. See primer product data sheet for surface preparation recommendation.

TECHNICAL DATA

VOLUME SOLIDS 66 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 5.0 mils (50 to 125 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 Handle	To Recoat	Resist Moisture
	95°F (35°C)	4 hours	5 hours	3 hours
75°F (24°C)	6 hours	8 hours	5 hours	
55°F (13°C)	12 hours	16 hours	9 hours	
35°F (2°C)	36 hours	48 hours	20 hours	

Curing time varies with surface temperature, air movement, humidity and film thickness. If coating is exposed to moisture before the applicable cure parameters are met, dull, flat or spotty appearing areas may develop. **Note:** For faster curing and low-temperature applications, add No. 44-710 Urethane Accelerator; see separate product data sheet. Contact Tnemec Technical Services for force curing times and temperatures.

VOLATILE ORGANIC COMPOUNDS

EPA Method 24 †

Unthinned	Max 7% (No. 39 Thin.)	Max 6% (No. 42 Thin.)	Max 5% (No. 48 Thin.)
2.59 lbs/gal (310 g/l)	2.83 lbs/gal (339 g/l)	2.82 lbs/gal (338 g/l)	2.81 lbs/gal (337 g/l)

HAPS

Unthinned	Max 7% (No. 39 Thin.)	Max 6% (No. 42 Thin.)	Max 5% (No. 48 Thin.)
0.19 lbs/gal solids	0.19 lbs/gal solids	0.19 lbs/gal solids	0.19 lbs/gal solids

THEORETICAL COVERAGE 1,051 mil sq ft/gal (25.8 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A and Part B

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

PACKAGING

	PART A (Partially filled)	PART B (Partially filled)	When Mixed
3 Gallon Kit	5 gallon pail	1/2 gallon can	3 gallons (11.35L)
1 Gallon Kit	1 gallon pail	1 pint can	1 gallon (3.79L)

NET WEIGHT PER GALLON 11.03 ± 0.25 lbs (5.00 ± .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: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 95°F (35°C) Part B: 135°F (57°C)

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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

Conventional Build (Spray, Brush or Roller)

	Dry Mills (Microns)	Wet Mills (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	2.5 (65)	4.0 (100)	423 (39.3)
Minimum	2.0 (50)	3.0 (75)	529 (49.2)
Maximum	3.0 (75)	4.5 (115)	353 (32.8)

High-Build (Spray Only)

	Dry Mills (Microns)	Wet Mills (Microns)	Sq Ft/Gal (m ² /Gal)
Suggested	4.0 (100)	6.0 (150)	265 (24.6)
Minimum	3.0 (75)	4.5 (115)	353 (32.8)
Maximum	5.0 (125)	7.5 (190)	212 (19.7)

Note: Can be spray applied at 3.0 to 5.0 mils (75 to 125 microns) DFT per coat when extra protection or the elimination of a coat is desired. 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. †

MIXING

Stir contents of the container marked Part A, making sure no pigment remains on the bottom. Add the contents of the can marked Part B to Part A while under agitation. Continue agitation until the two components are thoroughly mixed. When used with 44-710 Urethane Accelerator, first blend 44-710 into Part A under agitation; continue as above. Do not use mixed material beyond pot life limits. **Caution: Part B is moisture-sensitive and will react with atmospheric moisture. Unused material must be kept tightly closed at all times.**

THINNING

Thinning is required for proper application. For air or airless spray, thin 6% or 7 ounces per gallon with No. 42 Thinner if temperatures are below 80°F (27°C) or use 5% or 6 ounces of No. 48 Thinner for temperatures above 80°F (27°C). For brush and roller, thin 7% or 9 ounces per gallon with No. 39 Thinner. When using 1074U, maximum thinning is 7% for No. 39 Thinner, 6% for No. 42 Thinner, and 5% for No. 48 Thinner. **Caution: Do not add thinner if more than 30 minutes have elapsed after mixing.**

POT LIFE

1 1/2 hours at 77°F (25°C) unthinned 2 hours at 77°F (25°C) thinned

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	704 or 765	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	75-90 psi (5.2-6.2 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
0.009-0.013" (230-330 microns)	3000-3500 psi (207-241 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	100 mesh (150 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) synthetic woven nap roller covers. Do not use 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 above 3.0 mils (75 microns).

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.

CLEANUP

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

† Values may vary with color.

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