



MULTI-PURPOSE EPOXY SERIES 49

PRODUCT PROFILE

- GENERIC DESCRIPTION** Modified Polyamine Epoxy
- COMMON USAGE** A high-solids, low VOC epoxy coating used for a multitude of primer and topcoat applications. The tough, abrasion-resistant film of Series 49 provides durable protection to concrete, CMU, and steel, and it is immersion grade, making it an excellent choice for non-potable service environments. Excellent adhesion properties allow for use on marginally prepared surfaces when blast cleaning is not possible.
- COLORS** Available in light- and mid-tone colors. Deep-tone and safety colors may be limited. Contact your Tnemec Representative for more information. **Note:** Epoxies chalk with extended exposure to sunlight. 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 cause yellowing to occur.
- FINISH** Semi-gloss. Gloss can vary with texture, porosity of substrate and thickness of film.

COATING SYSTEM

- PRIMERS** **Steel:** Self-priming or Series 1, 90-97, 135, 394
Concrete or CMU: Self-priming or Series 215, 218, 1254, 130
- TOPCOATS** Series 73, 1026, 1028, 1029, 1074, 1075, 1095
Note: When topcoating with Endura-Shield polyurethane topcoats, Series 49 has a maximum time to recoat of 60 days. If this time is exceeded, scarification or a Series 49 tie-coat is required before topcoating. Refer to appropriate topcoat data sheet for additional information.
Note: Other primer and topcoat options may be available. Contact your Tnemec Coatings Consultant for more information.

SURFACE PREPARATION

- STEEL** **Immersion Service:** SSPC-SP10/NACE 2 Near White Blast Cleaning with a minimum angular anchor profile of 2.0 mils
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 2.0 mils
Moderate Exposure: SSPC-SP3 Power Tool Cleaning (SSPC Rust Grade Condition C)
- CONCRETE** Allow new concrete to cure for 28 days. Abrasive blast referencing SSPC-SP13/NACE 6, ICRI-CSP3-5 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.
- PRIMED SURFACES** **Immersion Service:** Scarify the surface before topcoating after 14 days.
- ALL SURFACES** Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

- VOLUME SOLIDS** 82.0 ± 2.0% (mixed) †
- RECOMMENDED DFT** 4.0 to 10.0 mils (100 to 255 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	Immersion
	75°F (24°C)	6-10 hours	16-18 hours ‡	7 days

Curing time varies with surface temperature, air movement, humidity and film thickness.
‡ Maximum recoat time with itself is 21 days. If more than 21 days have elapsed between coats of Series 49 the coated surface must be scarified before topcoating.

- VOLATILE ORGANIC COMPOUNDS** EPA Method 24 †
Unthinned: 0.80 lbs/gallon (96 grams/litre)
Thinned 10% (No. 2 Thinner): 1.92 lbs/gallon (230 grams/litre)
Thinned 10% (No. 49 Thinner): 0.80 lbs/gallon (96 grams/litre)

- HAPS** **Unthinned:** 1.60 lbs/gal solids
Thinned 10% (No. 2 Thinner): 2.50 lbs/gal solids
Thinned 10% (No. 49 Thinner): 1.60 lbs/gal solids

- THEORETICAL COVERAGE** 1,315 mil sq ft/gal (32.3 m²/L at 25 microns). See APPLICATION for coverage rates. †

- NUMBER OF COMPONENTS** Two: Part A (amine) and Part B (epoxy)

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

- NET WEIGHT PER GALLON** 14.70 ± 0.25 lbs (6.67 ± .11 kg) (mixed) †

- STORAGE TEMPERATURE** Minimum 20°F (-7°C) Maximum 120°F (49°C)
For optimum application properties, material temperature must be above 60°F (16°C) prior to application.

- 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 & Part 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

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m ² /Gal)
Minimum	4.0 (100)	5.0 (125)	329 (30.5)
Maximum	10.0 (255)	12.0 (305)	131 (12.2)

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 must be above 60°F (16°C) prior to mixing. Mixing ratio is one to one by volume. A large volume of material will set up quickly if not applied or reduced in volume.

Caution: Do not reseal mixed material. An explosion hazard may be created.

THINNING

Use No. 2 Thinner. For air spray, airless spray or roller, thin up to 10% or 3/4 pint (380 mL) per gallon. Thin up to 10% or 3/4 pint (380 mL) per gallon with No. 49 Thinner when required by air pollution regulations.

POT LIFE

2 1/2 hours at 60°F (16°C) 2 hours at 77°F (25°C) 1 hour at 100°F (38°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)	60-90 psi (4.2-6.2 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
0.015"-0.021" (380-535 microns)	3000-3800 psi (207-262 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: Roller application optional when environmental restrictions do not allow spraying. Use 3/8" or 1/2" (9.5 mm to 12.7 mm) synthetic woven nap covers. **Note:** When applying to concrete or CMU, the coating must be brushed, rolled, or sprayed and back-rolled. Two coats are normally recommended for lightweight block.

Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes. **Note:** Two or more coats may be required to obtain recommended film thicknesses.

SURFACE TEMPERATURE

Minimum 60°F (16°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 xylol.

† Values may vary with color.

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