



MACROPOXY[®] 646

FAST CURE EPOXY

Revised: December 6, 2018

PRODUCT DESCRIPTION

MACROPOXY 646 Fast Cure Epoxy is a high solids, high build, fast drying, polyamide epoxy designed to protect steel and concrete in industrial exposures. Ideal for maintenance painting and fabrication shop applications. The high solids content ensures adequate protection of sharp edges, corners, and welds. This product can be applied directly to marginally prepared steel surfaces.

INTENDED USES

- Recommended for marine applications, refineries, offshore platforms, fabrication shops, chemical plants, tank exteriors, power plants, water treatment plants, and mining and minerals industry
- Mill White and Black are acceptable for immersion use for salt water and fresh water, not acceptable for potable water

PRODUCT DATA

Finish:	Semi-Gloss		Average Drying Times @ 7.0 mils (175 microns) wet:		
Colors:	Mill White, Black and a wide range of colors available through tinting		35°F (1.7°C)	77°F (25°C)	100°F (38°C)
Volume Solids:	72% ± 2%, mixed, Mill White		50% RH	50% RH	50% RH
VOC (mixed):	Unreduced: <250 g/L; 2.08 lb/gal Reduced 10%: <300 g/L; 2.50 lb/gal		Touch:	4-5 hours	2 hours
Mix Ratio:	1:1 by volume		Handle:	48 hours	8 hours
Typical Thickness:			Recoat:		
			minimum:	48 hours	8 hours
			maximum:	1 year	1 year
			Cure to service:		
			atmospheric:	10 days	7 days
			immersion:	14 days	7 days
			Average Drying Times as intermediate @ 5.0 mils (125 microns) wet:		
			Touch:	3 hours	1 hour
			Handle:	48 hours	4 hours
			Recoat:		
			minimum:	16 hours	4 hours
			maximum:	1 year	1 year
			<i>If maximum recoat time is exceeded, abrade surface before recoating. Drying time is temperature, humidity, and film thickness dependent. Paint temperature must be 40°F (4.5°C) minimum.</i>		
			Pot Life:	10 hours	4 hours
			Sweat-in-time:	30 minutes	30 minutes
					15 minutes

Recommended Spreading Rate per coat:

	Minimum	Maximum
Wet mils (microns)	7.0 (175)	13.5 (338)
Dry mils (microns)	5.0* (125)	10.0 (250)
~Coverage sq ft/gal (m²/L)	115 (2.9)	230 (5.8)
Theoretical coverage sq ft/gal (m²/L) @ 1 mil / 25 microns dft	1152 (28.2)	

*May be applied at 3.0-10.0 mils (75-250 microns) dft as an intermediate in a multicoat system.

NOTE: Brush or roll application may require multiple coats to achieve maximum film thickness and uniformity of appearance.

Shelf Life: 36 months, unopened
Store indoors at 40°F (4.5°C) to 110°F (43°C).

Flash Point: 91°F (33°C), TCC, mixed

Reducer/Clean Up: Reducer R7K15 or Reducer #58 (California) Reducer R7K111 or Oxsol 100

Weight: 12.9 ± 0.2 lb/gal ; 1.55 Kg/L, mixed, may vary by color

SURFACE PREPARATION

Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion.

Minimum recommended surface preparation:

Iron & Steel: Atmospheric: SSPC-SP2/3/ ISO8501-1:2007 St 2 or SSPC-SP WJ-3 / NACE WJ-3L
Immersion: SSPC-SP10 / NACE 2/ ISO8501-1:2007 Sa 2.5, 2-3 mil (50-75 micron) profile or SSPC-SP WJ-2/NACE WJ-2L

Aluminum & Galvanizing: SSPC-SP1

Concrete & Masonry: Atmospheric: SSPC-SP13/NACE 6, or ICRI No. 310.2R CSP 1-3
Immersion: SSPC-SP13/NACE 6-4.3.1



Protective & Marine Coatings
PRODUCT DATA SHEET



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APPLICATION	APPLICATION CONDITIONS																																																																					
<p>Airless Spray*</p> <p>Pump.....30:1 Pressure.....2800-3000 psi (193-206 bar) Hose.....1/4" ID (6.3 mm) Tip......017"-.023" (0.43-0.58 mm) Filter.....60 mesh Reduction.....As needed up to 10% by volume</p> <p>Conventional Spray*</p> <p>Gun.....DeVilbiss MBC-510 Fluid Tip.....E Air Nozzle.....704 Atomization Pressure.....60-65 psi (4.1-4.5 bar) Fluid Pressure.....10-20 psi (0.7-1.4 bar)</p> <p>Brush*</p> <p>Brush.....Nylon/Polyester or Natural Bristle</p> <p>Roller*</p> <p>Cover.....3/8" woven with solvent resistant core</p> <p>Plural Component Spray ..Acceptable</p> <p>*Reduction.....As needed up to 10% by volume</p> <p>If specific application equipment is not listed above, equivalent equipment may be substituted.</p>	<p>Temperature:</p> <p>Air: 35°F (1.7°C) minimum, 120°F (49°C) maximum Surface: 35°F (1.7°C) minimum, 250°F (120°C) maximum Material: 40°F (4.5°C) minimum At least 5°F (2.8°C) above dew point</p> <p>Relative humidity: 85% maximum</p>																																																																					
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	<ul style="list-style-type: none"> Suitable for use in USDA inspected facilities Acceptable for use in Canadian Food Processing facilities, categories: D1, D2, D3 (Confirm acceptance of specific part numbers/rexes with your SW Sales Representative) Conforms to AWWA D102 OCS #5 Conforms to MPI # 108 This product meets specific design requirements for non-safety related nuclear plant applications in Level II, III and Balance of Plant, and DOE nuclear facilities* Meets Class A requirements for Slip Coefficient, 0.36 @ 6 mils / 150 microns dft (Mill White only) <p>* Nuclear qualifications are NRC license specific to the facility</p>																																																																					
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