**Enviro-Pox 949 High Build Epoxy Mastic**

**PRODUCT DESCRIPTION**

Enviro-Pox 949 High Build Epoxy Mastic is a high-quality coating that can be used with or without primer over steel, galvanized metal, aluminum and concrete. Enviro-Pox 949 High Build Epoxy Mastic bonds directly to steel or concrete. A single coat can out perform several coats of alkyd coating. Two coats of this coating may be applied at one-hour intervals for a total of 15 mils dry film.

Enviro-Pox 949 High Build Epoxy Mastic was formulated to combat the most severe conditions. High solids allow the coating to be applied at 5 – 7 mils dry film to help protect sharp corners, edges or welds. It withstands highly corrosive and abrasive environments. It is surface tolerant and performs well over marginally prepared substrates.

Enviro-Pox 949 High Build Epoxy Mastic is formulated to be VOC, HAPS and TAPS compliant. It meets the performance requirements of SSPC Paint no. 22, MPI # 108, MPI # 120, MIL-C-22750, MIL-P-23377 and MIL-DTL-24441.

**TECHNICAL INFORMATION**

**Generic Types:** Polyamide Epoxy – Two Components

**Gloss:** Semi-Gloss 30 – 50 units @ 60°

**Use:** Protective / Decorative

**Color:** White, Haze Gray

(A selection of custom colors is also available.)

**Recommended Film Thickness:**

- 5.0 – 7.0 Mils Dry
- 6.8 – 9.5 Mils Wet

**Spread Rate:** 236 – 169 sq ft/gal @ the recommended dft

**Dry Time:**

- To Touch: 1 – 2 hours
- To Handle: 6 – 8 hours
- To Re-coat: 6 – 10 hours
- To Topcoat: 6 – 10 hours

(Or, wet-on-wet after one hour)

Drying times are dependent upon film thickness, temperature and humidity.

**Storage Temperature:**

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

**Flash Point:** 70°F (20°C)

**Viscosity:** 90 – 100 KU (activated) @ 77°F (25°C)

**VOC:** 1.86 (223 g/l) ± 1% (activated)

**HAPS / Gal Solids:** 2.49 (activated)

**Solids by Volume:** 73.6 ± 2% (activated)

**Solids by Weight:** 84.9 ± 2% (activated)

**Weight per Gallon:** 12.50 ± 15 lbs/gal

(Varies by color)

**Mix Ratio:** 1:1 by volume

**Pot Life:** Four hours @ 77°F (25°C)

**Shelf Life:** One year unopened from date of manufacture, each component.

**Recommended Primer:** Product is self-priming but can be used over Enviro-Zinc Epoxy Primer for maximum protection.

**Enviro-Pox 949 High Build Epoxy Mastic** can be used as a primer, immediate coat, and/or topcoat in a three-coat system.

**Clean Up:** 560X0015 (Enviro-Pox Thinner)

**PERFORMANCE PROPERTIES**

**System Tested:**

- Substrate: Steel
- Surface Preparation: SSPC-SP6
- 1 ct. Enviro-Pox 949 @ 5 mils dft

**Adhesion:**

- Method: ASTM D4541
- Result: Passes 750 lbs/sq in

**Pencil Hardness:**

- Method: ASTM D3363
- Result: 7-day cure: H

**Flexibility:**

- Method: ASTM D522
- Result: Passes 180° bend 5/8” Mandrel

**Dry Heat Resistance:**

- Method: ASTM D2485
- Result: Passes 375°F Maximum

**Salt Spray Resistance:**

- Method: ASTM B117
- Result: Passes 1000 hours – no rust, no blistering

**Abrasion Resistance:**

- Method: ASTM D4060 1 kg load
- Result: 1000 cycles, 60 mg loss
APPLICATION INFORMATION

SURFACE PREPARATION:
Surface of substrate should be dry, clean, and in sound, paint-worthy condition. The surface must be free of dirt, grease, oil, salts, loose rust, loose mill scale, and any other foreign materials or contaminants. For non-severe exposure, SSPC-SP3, Power Tool Cleaning may be all that is required. SSPC-SP6, Commercial Blast Cleaning is required for more demanding conditions or severe chemical exposure.

Steel and Iron:
The minimum surface preparation for steel and iron is SSPC-SP2/SP3, Hand Tool or Power Tool Cleaning. Prior to this procedure, the surface should be solvent cleaned per SSPC-SP1. For more severe exposures, begin with SSPC-SP1, followed by SSPC-SP6, Commercial Blast Cleaning. Bare metal should be primed as soon after surface preparation as possible, or before flash rusting occurs.

APPLICATION CONDITIONS:
Surface Temperature:
50°F (10°C) Minimum 110°F (43°C) Maximum

Paint Temperature:
50°F (10°C) Minimum 90°F (32°C) Maximum
Surface should be dry and a minimum of 5°F (3°C) above the dew point.

Relative Humidity:
Dry times may be adversely affected as the relative humidity increases. Caution should be taken when painting in very humid conditions.

MIXING & THINNING INSTRUCTIONS:
Before use, mix paint thoroughly by boxing and stirring. Mechanical agitation is preferred. Be sure all settlement, if any, is well incorporated. Mix one-part base component to one-part activator component by volume.

Note: The addition of thinner reduces viscosity, which, in turn, affects spread rate and application characteristics. If thinner is used, make sure it is well incorporated into the paint prior to application.

APPLICATION EQUIPMENT:
The following are general recommendations. Pressure and tip size may be varied due to temperature changes and for proper spray characteristics.

Thinning:
Thin up to 10% by volume with 560X0015 (Enviro-Pox Thinner)

Airless Spray:
Pump Ratio: 30:1
Hose: 1/4” or 3/8”
Tip Size: .015 – .019
Pressure: 2400 – 2600 psi
Filter: 60 Mesh

Air-assisted Airless
Pump Ratio: 30:1
Fluid Pressure: 800 – 1200 psi
Air Pressure: 10 – 20 psi
Fluid Hose: 5/16” – 1/2”
Tip Size: .017 – .019

Conventional Spray:
Gun: Graco AirPro or equal
Fluid Nozzle: 1.4 mm
Air Cap: 289773
Atomization Pressure: 40 – 50 psi
Fluid Pressure: 15 – 20 psi

Brush, roll or spray.

HINTS FOR BETTER PERFORMANCE:
A clean substrate is necessary for optimal performance, as direct contact of coating and steel surface is required for rust inhibition and good adhesion.

All welds, sharp edges, angles, and other areas prone to early rusting due to insufficient coverage should be stripe-coated prior to full application to help prevent premature failure in these areas.

Over-thinning of the coating material can result in an insufficient film-build, poor adhesion and overall poor appearance.

During the spray application, use a 50% overlap with each pass of the gun. This will help ensure complete and thorough coverage, avoiding low build areas, which may corrode prematurely due to insufficient primer.

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