



Top Mastic Epoxy 450

Product Description

A two-component, high-solids epoxy primer formulated with zinc phosphate anti-corrosive pigments. Engineered for high-build application, it delivers rapid drying and excellent adhesion to ferrous substrates. Upon curing, it forms a mechanically robust and chemically resistant film that provides long-term protection against corrosion, even in aggressive industrial or marine environments.

Its advanced formulation ensures compatibility with a wide range of topcoats, making it an ideal choice for use in multi-layer protective coating systems. Recommended for steel structures, pipelines, storage tanks, and equipment exposed to harsh conditions.

Product uses:

- **Versatile Role in Coating Systems:** Engineered for use as an epoxy primer or intermediate build coat within multi-layer protective coating systems.
- **Exceptional Environmental Resistance:** Provides outstanding durability in saline, marine, and chemically aggressive environments.
- **Broad Substrate Compatibility:** Suitable for application on ferrous metals, galvanized steel, aluminum, concrete, and intact aged coatings.
- **Surface Preparation Flexibility:** Designed for use on hand-prepared rusty steel, abrasive blast-cleaned and hydro-blasted ferrous substrates, blasted concrete, and previously coated surfaces in sound condition.
- **Industrial and Marine Applications:** Recommended for industrial maintenance and infrastructure including coastal facilities, pulp and paper mills, food and beverage plants, structural steel, tank exteriors, bridges, offshore platforms, and immersion service in fresh or salt water.
- **Repair and Spot Maintenance:** Ideal for coating repair on steel surfaces where abrasive blasting is impractical due to environmental constraints. Suitable for brush application when a high-build coat is required in a single pass. Also applicable in engineering workshops and fabrication yards.

Properties

- **Reliable Adhesion to Prepared Substrates:** Demonstrates strong adhesion to wire-brushed steel surfaces, ensuring effective performance even with minimal surface preparation.
- **Robust Chemical and Water Resistance:** Offers excellent resistance to a wide range of chemicals and moisture, supporting long-term durability in aggressive environments.
- **Optimized for Topcoat Compatibility:** Provides a secure anchoring layer for subsequent topcoats, enhancing system integrity and finish quality.
- **Adheres to Aged Coatings and Bare Steel:** Maintains excellent adhesion on both new steel and sound aged epoxy coatings, facilitating maintenance and recoating operations.
- **High-Solids, High-Build Formulation:** Designed for superior edge retention and coverage over complex geometries such as corners, weld seams, crevices, and porous concrete surfaces.
- **Suitable for Secondary Containment Areas:** Performs effectively in containment zones requiring chemical resistance and structural resilience.
- **Abrasion and Impact Resistance:** Cures to a hard, scratch-resistant film with high mechanical strength, capable of withstanding physical stress and operational wear.

Technical Data Sheet



TECHNICAL PROPERTIES

<i>Appearance/Color</i>	Semi flat / RAL color card
<i>Density:</i>	1.48 kg/liter (Mixed)
<i>Volume solids %:</i>	75 %
<i>Theoretical spreading rate:</i>	10 m ² /ltr / 6.75 m ² /kg (75 micron DFT)
<i>Consumption:</i>	0.100-.0.150 ltr/ m ² (150-200 g/m ²)
<i>Recommended DFT:</i> (Dry Film thickness)	100-200 micron
<i>Flash Point:</i>	32° C. /89.6°F
<i>Pot Life:</i>	2 hours (23°C and 50% R.H.)
<i>VOC:</i>	10 g/ltr
<i>Surface dry:</i>	1 approx. hour(s) 23°C/73.4°F 50% R.H
<i>Light foot traffic</i>	12-14 hours (23°C and 50% R.H.)
<i>Full dry:</i>	24 hours (23°C and 50 % R.H.)
<i>Full cure time:</i>	7 days (23°C and 50 % R.H.)
<i>Application temperature:</i>	+8 °C/46.4° F and +35 °C/ 95°F
<i>Min. cure temperature:</i>	+10°C/50°F

Application Details

<i>Mixing Ratio:</i>	Component A: 6– Component B: 1 (By weight)
<i>Application method:</i>	Brush – Roller – Airless Spray
<i>Thinner:</i>	Epoxy Thinner
<i>Thinner Amount:</i>	Brush (Do not thin) – Roller (10 %)- Airless spray (5-7 %)

Surface Preparation:

- Surfaces must be dry, clean and free from contaminants
- Ensure removal of dirt, dust, oil and all other contaminants that could interfere with adhesion of the primer.
- Oil and grease should be removed as per SSPC-SP1 solvent cleaning with aromatic solvents.
- Surface should be checked and treated in accordance with ISO 8504 prior to priming.
- Blast Cleaning:
 - Steel, abrasive blast clean to min. Sa 2 1/2 (ISO 8501-1: 200) or SSPC –SP6.
 - In case oxidation has occurred between blasting and application of Top Mastic Epoxy , the surface should be re blasted.
 - A blasting profile of (Rz) 30 - 50 microns is recommended
 - If blast cleaning is impractical, remove loose rust/ scale using power tools/ hand tools to achieve St3/ St2 grade of surface preparation as per Swedish standards
- Damaged Area:
 - Damage area should be prepared with abrasive blast cleaning to Sa 2½ (ISO 8501-1:2007). When abrasive blasting in small area is not possible, mechanical cleaning to St 3 (ISO 8501-1:2007) is acceptable.
 - The product should be applied over a surface that is dry and free from all contamination and must be applied within the over coating intervals specified (refer to application section for details).

PRECEDING COAT:

Nothing

Shelf life & Storage:

24 months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.



Safety:

For information and precautions on the safe handling, transportation storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Mixing:

Before mixing with the curing agent, stir the base thoroughly in order to prevent any possible settling after storage. After mixing it is equally important to maintain stirring to keep the wet paint as a Homogeneous mixture.

Legal Notice:

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