Polyguard EM80

EPOXY MASTIC (5:1)

Product Description

Polyguard EM80 is a two-component, surface tolerant, high solid polyamine cured epoxy mastic coating. Specially designed for areas where optimum surface preparation is not possible. It can be used as primer, mid coat, finish coat or as single coat system depend on atmospheric and immersed environments. Suitable for properly prepared carbon steel and aged coating surfaces especially for maintenance work.

Typical Uses

This high-performance industrial maintenance coating system is ideal for protecting rusty steel, and power tool cleaning, and provides durable protection in marine environments such as outside hulls and vessel interiors. It is also suited for offshore structures, refineries, power plants, bridges, buildings, mining equipment, chemical process factories, and general structural steel applications.

Feature

- Versatile Application: Suitable for a wide range of surfaces, including immersed environments, where aluminum-filled versions are used.
- Durable Protection: Provides excellent resistance in harsh industrial and marine conditions.
- Robust Performance: Designed for high-stress environments such as refineries, offshore sites, and heavy equipment.
- Enhanced Surface Preparation: Effectively handles rusty steel and facilitates power tool cleaning
- Direct to metal: Used as DTM, primer cum finish for steel infrastructure

Technical Properties

Color/Shades	Wide range of colors including Aluminum
Finish/Gloss	Semigloss
Volume Solids	80 ± 2%
Specific Gravity	1.5 Kg/Liter
Mix ratio	5:1 (base: curing agent)
Typical Thickness	75-150 microns [3-6 mils] dry equivalent to 94-188 microns [3.7-7.4 mils] wet
Coverage	8 m^2/liter at 100 microns DFT (theoretical)
Flash Point	35^{0}C [95°F]
VOC	< 248 g/Lit
Thinner/Cleaner	Thinner E1

Drying Time

Surface Temperature		**20°C**	**30°C**	**40°C**
Surface dry		2.5 Hours	1.5 Hours	1 Hour
Hard dry		3.5 Hours	2.5 Hours	1.5 Hours
Recoat	Minimum	6 Hours	4.5 Hours	3.5 Hours
	Maximum	-	-	-
Fully Cured		7 Days	5 Days	3 Days
Pot life		60-75 Minutes @25^{0}C		
Induction Time		12 to 16 Minutes @25^{0}C		

These figures are provided at dry film thickness of 125 microns DFT at standard conditions.

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Surface Preparation:

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

Iron & Steel:

- Abrasive blasting to min. Sa 2½ (ISO 8501-1) / SSPC SP 10.
- Remove dust, blast media and loose materials.

Maintenance and Repair:

- Spot abrasive blasting to min. Sa 2 (ISO 8501-2) / SSPC SP 6.
- Water jetting to min. Wa 2 (ISO 8501-4).
- Flash rust degree of maximum FR M (ISO 8501-4).
- Remove dust, blast media and loose materials.
- Minor areas can be cleaned by power tool to St 2 provided the surface is roughened and not polished.

Consult TRPL's for more details on surface preparation.

Application

Application Method	Thinning	Application Parameters
Airless Spray	5%	Nozzle pressure: 250 bar [3600 psi] Nozzle orifice: 0.017-0.023"
Brush & Roller	5%	-

If a brush or roller application is used, more coats will be necessary to achieve the specified dry film thickness. Spray data are indicative and subject to adjustment. Pressure is for a material temperature of 20°C [68°F].

Notes:

- Material is supplied in two containers as a unit.
- Always mix the complete unit in the proportions supplied.
- Stir the Base properly for better results and homogeneity.
- Combine entire content of Hardener (part B) with Base (part A) and mix thoroughly with power agitator before spray and continuing till consume of whole mixed compound or with Steel Rod till complete homogeneity of the mixture.
- Resistance to temperature: dry atmospheric temperature up to 1200C & immersed sea water temperature up to 650C.
- Peak temperature duration up to 1 hour
- The temperatures listed relate to the retention of protective properties. Aesthetic properties may suffer at the set temperatures.
- Product compatibility: Depending on the actual exposure of the coating system, various primers and topcoats can be used in combination with this product.
- Previous coat: Epoxy shop primer, inorganic zinc silicate shop primer, zinc epoxy, epoxies
- Subsequent coat: Polyurethanes & Epoxies

Contact TRPL's representative for recommendations.

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Application Conditions:

- Temperature of product must be above 15°C [59°F] during application.
- To avoid condensation, apply on a clean and dry surface with a temperature that is at least 3°C [5°F] above the dew point.
- Surface temperature must be above -5°C [23°F] during application and curing.
- The relative humidity should not exceed 85% to ensure proper application and curing.

Storage

Shelf Life: 12 Months, when sealed

Storage Conditions: Store indoors at 4.5^0C [40^0F] to 31^0C [100^0F]

The product must be stored in accordance with national regulations. Keep the containers in a cool and dry place and well-ventilated area with no direct source of heat or light. Containers must be kept tightly closed when not in use.

Safety: Handle with care. Before & during use, observe all safety labels on packaging and paint containers, consult Material Safety Data Sheets, and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin & eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well-ventilated areas.

Disclaimer: The information in this document is given to the best of TRPL's knowledge, based on laboratory testing & practical experience. TRPL products are considered semi-finished goods, as such products are often used beyond TRPL's control. TRPL can not guarantee anything but the quality of the product itself. Minor product variations may be implemented to comply with local requirements. TRPL reserves the right to change the given data without further notice. User should always consult TRPL for specific guidance on the general suitability of the product for their needs and specific application practices.