



Polyguard FC85 MIO

FLOW COAT EPOXY

Product Description

A two-component, high-solid, amine-cured epoxy coating pigmented with micaceous iron oxide (MIO). It provides superior barrier protection in atmospheric & heavy industrial environments. This product is specifically designed for airless and flow coat application methods.

Typical Uses

Polyguard FC85 MIO is suitable for structural steel and piping, offering excellent barrier protection to industrial and coastal infrastructures in various atmospheric exposures. It is recommended as a high-build coating for use in high-performance systems where quick dry-to-handle, short overcoating, and faster throughput are required. It can be used as a primer or an intermediate coat.

Features

- Flow coat-able
- MIO pigmented
- Fast Drying
- Fast Overcoating
- Corrosion resistant
- Versatile applications
- Meets ISO 12944-6:2018 C1-C5 requirements

Technical Properties

Color / Shades	Grey, Red
Gloss	Matt
Volume Solids	85% ± 2
Specific Gravity	1.69 Kg/L
Mix ratio	3:1 by volume
Typical Thickness	75-200 micron [3-7.9 mils] dry equivalent to 88-235 microns [3.5-9.3 mils] wet
Coverage	8.5 m ² /liter at 100 microns DFT (theoretical)
Flash Point (Typical)	25°C (77°F), mixed
VOC	196 g/L
Thinner / Cleaner	Thinner E1

Drying Time	Surface Temperature	25°C
	Touch	70 Minutes
	Surface	<u>5.5 Hours</u>
Recoat	Min:	<u>7 Hours</u>
	Max:	<u>Ext</u>
	Hard Dry	4 Hours
	Pot Life	2 Hours
	Cured to service	<u>7 Days</u>

The above drying times are calculated for dry film thickness 100 micron [4.0 mils] at standard conditions.



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Surface Preparation

The coating performance will depend on the quality of surface preparation. It is essential that the surface to be coated is clean, dry, and free from contaminants. Before applying paint, inspect and treat all surfaces according to the standards set in ISO 8504:2000.

Iron & Steel

Abrasive blast clean to a minimum Sa 2½ (8501-1:2000) or SSPC-SP6. In case oxidation has occurred between blasting and application of the surface should be reblasted.

Coated Surfaces

Surface should be dry, clean, intact, tightly adherent undamaged and should always be applied over a recommended anti-corrosive coating scheme. Loose or flaking coatings should be removed back to a firm edge.

Zinc Primed Surfaces

Ensure that the primer's surface is clean, dry, and free from contamination and zinc salts before applying Polyguard FC85 MIO. Ensure that zinc primers are fully cured before overcoating.

Application

Application Method	Thinning	Application Parameters
Airless Spray	5-10%	Nozzle pressure: 225 bar [3300 psi] Nozzle orifice: 0.019 - 0.023
Flow Coat	30-40%	Not applicable
Brush / Roller	30-40%	Not applicable

When using a brush or roller for application, you will need to apply additional coats to achieve the specified dry film thickness. The spray data given is only a guide and may require adjustments. The pressure measurements are based on a material temperature of 25°C.

Note

- The material is supplied in two containers as a complete unit. Always mix the entire unit in the proportions provided.
- Stir the base thoroughly for optimal results and homogeneity.
- Combine the entire contents of the hardener (Part B) with the base (Part A) and mix thoroughly using a power mixer before spraying. Continue mixing until the entire compound has been used, or use a steel rod to ensure complete homogeneity of the mixture.
- For flow coat application, it is recommended to use 40% thinner at 25°C, to achieve required application viscosity.

Application Conditions

- The optimal paint temperature for proper mixing, pumping, and spraying is 20°C (68°F).
- To prevent condensation, ensure you apply the paint on a clean and dry surface with a temperature at least 3°C (5°F) above the dew point.
- The surface temperature must be above 10°C (50°F) during both application and curing.
- The relative humidity should remain below 85% during application and curing.

Application Notes

- This product requires heavy-duty spray equipment; keep spray hoses as short as possible.
- Metallized surfaces should be overcoated before being exposed to open-air conditions.
- It is recommended to use a flash-coat technique when overcoating porous substrates.



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Storage

Shelf Life

Base: 24 Months, unopened
Curing Agent: 24 Months,

Storage Conditions

The product must be stored in compliance with local regulations, at a maximum temperature of 40°C (104°F), away from direct sunlight, and protected from rain and snow.

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.