Polyguard MP85

MULTIPURPOSE EPOXY

Product Description

A two-component, high solid, low VOC surface tolerant epoxy, suitable for severely corrosive environments as it provides long-lasting corrosion and barrier protection. The product is also available in the MIO version.

Typical Uses

Polyguard MP85 is suitable for both maintenance and new construction coating needs. It offers excellent anti-corrosive and barrier protection to industrial and coastal infrastructure in various atmospheric exposures. It is recommended as a high-build, primer cum finish as well as an intermediate coat for use in high-performance coating systems where short overcoating and faster throughput are a requirement.

Features

- Surface tolerant
- Fast overcoating
- Resistant to cracking even with a thick film application.
- Unique value proposition with application properties.
- Primer cum finish
- Intermediate coat with MIO
- Meets ISO 12944-6:2018 C1-C5 requirements

Technical Properties

Color / Shades	Wide range of colors including Aluminum
Gloss	Semigloss
Volume Solids	85% ± 3
Specific Gravity	1.4 Kg/L, mixed
Mix ratio	4:1 by volume
Typical Thickness	100-250 micron [6-10 mils] dry equivalent to 118-294 microns [5-12 mils] wet
Coverage	8.5 m^2/liter at 100 microns DFT (theoretical)
Flash Point (Typical)	25^{0}C (77^{0}F), mixed
VOC	196 g/Liter
Thinner/Cleaner	Thinner E1

Drying Time

Surface Temperature		10^{0}C	20^{0}C	30^{0}C	40^{0}C
Touch		2.5 Hours	1 Hours	40 min	20 min
Surface		5.5 Hours	2.5 Hours	1 Hours	30 min
Recoat	Min:	7 Hours	3 Hours	2 Hours	90 min
	Max:	Ext	Ext	Ext	Ext
Hard Dry		8 Hours	3.5 Hours	1.5 Hours	45 min
Pot Life		2.5 Hours	1 Hours	45 min	30 min
Fully Cured		-	7 days	-	-

The above drying times are calculated for dry film thickness 50 micron [2.0 mils] at standard conditions.

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Surface Preparation

The level of surface preparation will determine the product performance. The surface to be coated must be clean, dry, and free of contaminants. Before applying paint, all surfaces should be inspected and treated in compliance with ISO 8504:2000. Remove any accumulated dirt and soluble salts; dry bristle brushing is usually sufficient for accumulated dirt, and use fresh water washing to remove soluble salts.

Iron & Steel

The abrasive blasting to a minimum of Sa 2½ (ISO 8501-1) / SP 10 (SSPC). Use non-metallic blast media (corundum, garnet, etc.) for non-ferric metals and alloys, stainless steel and aluminum. Sweeping blast to create a consistent, dense profile free from blank spots. Clear away any loose items, blast media, and dust.

Maintenance & Repair

Hand or power tool clean to a minimum St2 (ISO 8501-1:2007) or SSPC-SP2. Note that all scales must be removed, and areas that cannot be prepared adequately by chipping or needle gun should be spot-blasted to a minimum standard of Sa2 (ISO 8501-1:2007) or SSPC-SP6. Typically this would apply to C or D grade rusting in this standard.

Stainless steel, aluminum, and other non-ferric metals and alloys use non-metallic blast media (corundum, garnet, etc.). Sweep blasting to a uniform dense sharp profile, without blank spots and the flash rust to maximum FR M (ISO 8501-4).

Application

Application Method	Thinning	Application Parameters
Airless Spray	5-10%	Nozzle pressure: 225 bar [3300 psi] Nozzle orifice: 0.019 - 0.023
Brush / Roller	5-10%	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 (77°F).

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.

Application Conditions

- The optimal paint temperature for proper mixing, pumping, and spraying is 25°C (77°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.

Storage

Shelf Life

12 Months, unopened

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.

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