DATA SHEET

EPO100MT HARDENER

MOISTURE AND METAL TOLERANT HARDENER

DESCRIPTION

MT Hardener is a proprietary formulation specifically designed for use in systems where the epoxy may be applied to metal or exposed to moisture, cool temperatures and damp substrates. It is capable of curing at temperatures down to 5°C and can resist moisture while curing. EPO100MT Moisture and Metal Tolerant Hardener can create a strong bond to mineral-based and metal substrates.

RECOMMENDED USES

- Maintenance and marine coatings
- Containers and tanks
- Pipe and bridge coatings
- Primers for steel and concrete
- Automotive aftermarket
- Electrical castings
- Cold rooms

PRODUCT INFORMATION

Pot Life	30 minutes at 25°C.
Work Time Per Pack	0.5 hours
Tack Free Time	3 hours at 25°C.
Shelf Life	2 years. Store in a cool, dry area and out of direct sunlight
Heat Resistance	Epoxy will not begin to soften until 90°C.
Clean Up	Clean tools with 150T Epoxy Thinners while still wet and discard rollers and brushes
Mixing Ratios	**EPO100T:** (3:1) 3 Parts EPO100T (Part A): 1 Part EPO100MTH (Part B) **EPO100C and EPO100G:** (2:1) 2 Parts EPO100C or EPO100G (Part A): 1 Part EPO100MTH (Part B)
Return to Service	**Light Foot Traffic:** 8 Hours after completion of the job. **Vehicle Traffic:** 24-48 hours after the completion of the job. **Sure Hardness:** 72 hours after the completion of the job. **Full Chemical Cure:** 7 days after the completion of the job.

FEATURES & BENEFITS

- Excellent chemical resistance
- Excellent adhesion to damp, green and dry substrates
- Excellent mechanical properties
- Moisture tolerant during curing

ENVIRONMENTAL CONDITIONS

Temperature and the surrounding atmospheric conditions will play a part in the curing process of all epoxy products. Under conditions of low temperatures and high humidity, the final cured surface finish can be adversely affected potentially resulting in poor gloss retention, discolouration over time, poor overcoat ability, and inter-coat adhesion. Quite often these conditions will result in the formation of a white film over the surface often evident after contact with water. This chemical reaction with the atmosphere is commonly referred to as "amine bloom" or "amine blush".

If this occurs then the existing coating will need to be abraded to completely remove the affected surface to ensure the adhesion of subsequent application. In some cases, partial or complete re-priming may be necessary. Attention also needs to be paid to the substrate temperature which should be at least 10°C and preferably 5°C above the dew point during the curing phase. Ideal humidity is 50-70%.

Industry standards recommend the accurate recording of times and dates, batch numbers, consumption rates, and environmental conditions including the substrate and air temperatures, humidity levels, and dew point readings during both the application and curing process. Full material warranties cannot be provided unless all the relevant data has been recorded accurately.

Refer to individual SDS and Installation Instructions for system specifications and recommended PPE.

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SURFACE PREPARATION

- Ensure the concrete is sufficiently cured to the recommended minimum of 28 days from completion.
- Diamond grind or Polyvac the substrate. The surfaces must be clean, dry, and free from all traces of loose material, old coatings, curing compounds, release agents, laitance, oil, and grease, etc. This must be completed by diamond grinding or a suitable cleaning method.
- To check that all traces of oil and other contaminants have been completely removed, sprinkle a few drops of water over the surface. If all water is quickly absorbed, the surface is sufficiently oil and grease-free.
- If water forms into globules that remain on the surface, further thorough treatment of the substrate is necessary.
- Substrate compression strength should be at least 25MPa, cohesive bond strength at least 1.5MPa, and moisture content below 6%.
- Repair and fill cracks with EPO100EP Epoxy Putty or Concrete Repair Kit.

CAUTIONS

- Avoid contact with skin and eyes. Use full PPE during application including but not limited to, gloves, mask and goggles.
- Provide adequate ventilation when using in confined spaces.
- The mix ratio is calculated by product volume. **NOT BY PRODUCT WEIGHT**. Mixing product by weight may result in an unsatisfactory cure time or failure of the mix to cure entirely.
- Due to its yellowing nature, use only as a primer coat or in epoxy mortar and crack repair mixes.
- Spills, including water should be cleaned up as soon as possible.

PHYSICAL PROPERTIES

Solids content	100 %
Finish	Gloss
Rate of Burning	ASTM D635: Self-Extinguishing
Compressive Strength	ASTM D695: 12,000 psi
Tensile Strength	ASTM D638: 3,900 psi
Elongation at Break	ASTM D638: 7.00%
Taber Abrasion Resistance	ASTM D4060: <0.1 gloss
(mg or loss/1000 cycles) CS-17-wheel,1 kg load	
Water Absorption	ASTM D570: 0/07% (2-hour boil)
Flexural Strength	ASTM D790: 7,800 psi
Shore D Hardness	ASTM D2240: 89
Heat Distortion Temperature	IASTM D648:50°C
Bond Strength to Concrete	100% Concrete failure

Resistance to Chemical Spills (7 days at 25°C)

Ammonia Solution (20%)	Sodium Hydroxide (30%)
Sulphuric Acid (30%) Lactic Acid (5%)	Kerosene
	Aviation Fuels
Sodium Chloride (50%)	Petrol
Tannic Acid	Hydrochloric Acid (20%)
Acetic Acid (5%)	Toluene

In an emergency, contact the Poisons Information Centre on 13 11 26 or a doctor for advice.

IF THE SITUATION IS LIFE THREATENING, DIAL 000 IMMEDIATELY.

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