

MAK ELASTOTHANE EMB

[POLYURETHANE BASED ELASTOMERIC WATERPROOFING MEMBRANE]



Description :

Mak Elastothane EMB is a liquid applied, moisture cured, high tensile polyurethane modified, solvent based elastomeric membrane coating. Mak Elastothane EMB when applied on a surface, gives a continuous monolithic film which is rubbery and elastic in nature. The film cures by reaction with atmospheric moisture to give a tough elastomeric waterproof membrane.

Mak Elastothane EMB conforms to the requirements of ASTM C-836 and ASTM C-898

Area of Application :

The high elasticity, excellent bond strength with concrete and other substrates, low water permeability of Mak Elastothane EMB makes it ideal membrane coating for a wide range of water / vapour proofing applications such as:

- Foundations, Basements, Lift pits.
- Car decks, Podiums.
- Roof, terraces, Balconies, Patios.
- Sewage works and Sunken Portions.

The excellent chemical resistance of Mak Elastothane EMB is used as a barrier coating for any part of the external or internal faces of the structures where high degree of waterproofing is required.

Application Procedure :

Surface Preparation:

- Clean the surface thoroughly with wire brush, remove all dust, dirt, foreign Particles, fungi, etc.
- Allow surface to be completely dry. Do not apply Mak Elastothane EMB on damp surface.
- All the cracks/voids shall be sealed with rubberized Mak Sealing Compound or Mak Crete MWP mixed with cement and sand.
- Ensure provision of slope in the gradient of 1:100 towards drain by laying PCC admixed with integral waterproofing compound, Mak Plast preferably with galvanized chicken wire mesh.
- Provide fillet 75 mm x 75 mm coving made out of PMC mortar as above, using Mak SBR Latex as bond coat.

Material Preparation:

- Skin formation may happen on the top of material during humid condition. In that event, cut skin from the periphery of the container and remove it.
- Stir Mak Elastothane EMB by a slow speed mixture fitted with a suitable mixing paddle to ensure a homogenous mix.
- Allow the entrapped air to escape
- Consume within 4 hours of opening the container

Material Application:

- Apply Mak PU Primer on the entire surface to be treated. Alternatively, dilute Mak Elastothane EMB in the ratio of 1:1 with either Xylene or Toluene. Allow the primer to dry.
- Apply Mak Elastothane EMB by brush or spray @ 500gms to 1kg/sqm on the entire surface and up to 300 mm high on parapet wall. Allow it to dry.
- Apply second coat of Mak Elastothane EMB @ 500gms to 1kg/sqm to achieve total dry film thickness of 1.5mm.
- Reinforcement of Non-woven Polyester or Glass fiber of 40-50gsm may be provided between the layers for improved tensile strength.
- Extend water proofing treatment upto 300 mm and terminate into groove on the parapet wall. Fill the groove with Polymer modified mortar.
- Minimum 25mm thick wearing course of M15 grade reinforced with chicken wire mesh should be done within 7 days of curing as the coating is not UV resistant.
- Grooves of 6mm x 6mm must be cut on the wearing course in panels of 1.2m x 1.2m and filled with Mak Polyseal Polysulphide sealant

Coverage ;

Mak PU Primer: 6-8 Sqm/Ltr.

Mak Elastothane EMB: 1.6-1.8 kg/Sqm on a smooth surface will provide an adequate film thickness of 1.5 mm with minimum 500gms/sqm/coat consumption along with reinforcement of polyscrim cloth of 40-45gsm.

*Coverage rates may vary with surface texture and porosity.

Technical Specifications:

Characteristics	Value
Specific gravity	1.20-1.22
Swelling in water	Nil
Abel Closed Cup Flash Point	56°C
Solid Contents (%)	90 +/- 2
Adhesion to primed concrete (Pull of strength), MPa	2.0 +/- 0.5
Approximate drying time (tack free)	8-12 hours per coat
Approximate curing time (full cure)	36-48 hours
Elongation	>800%
Tensile strength (with reinforcement)	>4 MPa
Tensile strength (without reinforcement)	>2.5 MPa
Recovery at 500% elongation (%)	90 +/- 2
Hardness, Shore A (After 7 days)	>45
VOC Content (gms/kg)	110 +/- 2
Shelf life	12 months
Service Temperature	-40°C to +80°C or even more
Extension after heat ageing, mm	>6.4 with no cracks
Water permeability @5 bar waterhead pressure	Nil
Tear resistance, N/mm	>15
Water Vapour Transmission (1.0 mm thick), g/m ² /hr	>0.60

Storage:

Store in cool and dry place. Lid of the container should be properly closed after use. In very cold conditions store inside. Do not attempt to thin.

Once opened Mak Elastothane EMB will start to cure and a skin will form, even in the resealed cans. This can be removed if material is used within approximately one month.

Health & Safety:

- Keep away from sources of ignition
- Do not breathe vapour/spray
- Ensure good ventilation during application and drying
- In case of eye contact-wash with plenty of clean water and seek medical advice.
- Avoid prolonged skin contact wear suitable protective clothing and gloves while handling/applying.
- Remove from skin with mild solvent/hand cleanser and wash with warm soapy water.

Disclaimer

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.



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