

Mak Elastothane 2K-300

DESCRIPTION :

Mak Elastothane 2K-300 is a liquid applied two-component polyurethane-based coating that forms a continuous, solid, 100% waterproof membrane without joints or overlaps and completely adhered to the base. Suitable for waterproofing, protection and sealing ingeneral. Its properties make it an excellent choice to be applied to a multitude of substrates of new buildings and in refurbishments. It is applied manually and with airless spray machines.

TECHNICAL DATA :

Mix Ratio(PartA:Resin & PartB Hardener)	3:1
Density at 23°C, g/cm³ (ISO 1675)	1.40±0.07
Solids Content, % (ISO 1768)	100
Fire Reaction, Euro Class	F
Hardness Shore D at 23°C (ASTM D2240)	>60
Tear Strength at 23°C, N/mm (ASTM D 624)	>25
Tensile Strength at 23°C, MPa (ASTM D 412)	10±2
Puncture Resistance, N (ASTM E 154)	>350
Service Temperature Range	-30°C- 90°C
Elongation at Break at 23°C, % (ASTM D 412)	150 ± 20%
Adherence to Concrete, MPa, (ASTM D4541)	≥2
Static Crack Bridging Ability, mm (ASTM D 836)	≥2
Tack Free Time, h	±3
Curing Time at 23°C, days	±6
Coverage 1 mm to 1.5 mm (DFT)	1.2-1.7kg/m2

DOMAINS OF APPLICATION :

- Walkable roofs.
- Terraces, balconies, and overhangs.
- Metal roofs & asbestos roofs.
- Other PU / polyurea membranes.
- Waterbodies and swimming pools etc.

METHOD OF APPLICATION :

Surface Preparation:

Careful surface preparation is essential for optimum finish and durability. The surface needs to be clean, dry, and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances, and dust need to be removed by a grinding machine. Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed. Do not wash the surface with water.

Application:

Ensure substrate is dry and surface moisture content is <5% prior to primer application and applying the Mak Epo primer, make sure the angle fillets and all cavities, voids, cracks, and construction joints in substrate are properly done/treated. Any concrete latencies or release agents should be eliminated, grease from the surface by chipping, grinding, and cleaning up and eliminate all contaminants from the elements, such as dust or particles from the previous processes. Apply the Mak Epo primer at the rate of 0.20-0.25kg/m² to the entire substrate. In general, the primer should be used to promote adherence to the concrete surface, reduce the pin hole appearance, and absorption of 1- 2% moisture in the substrate and leave it for 3-4 hours, while the surface is still tacky. In any case, the waiting time after the application of the primer should not exceed 24 hours. Pour entire Part A into Part B and mechanically stir well before using at low speed. Pour the Mak Elastothane 2K-300 on the prepared surface and lay it out by roller, brush or trowel, until all surface is covered. You can use air less spray allowing a considerable saving of manpower. After 12-18 hours (not later than 48 hours) apply another layer of Mak Elastothane 2K-300

Thickness Recommended:

Recommended thickness is 1mm to 1.5mm. Environmental temperature for application: +5°C~35°C. Surface temperature for application: 5°C ~ 35°C. Do not proceed with application if atmospheric relative humidity is >80% or if the surface temperature is <3°C above the dew point.

ADVANTAGES :

- Simple application (roller, brush, trowel, spray)
- When applied forms a seamless membrane without joints.
- Resistant to water & frost
- Resistant to root penetration, so it can be used in green roofs.
- Provides water vapor permeability, so the surface can breathe.
- Maintains its mechanical properties over a temperature span of -30°C to +90°C
- Provides excellent adhesion to almost any type of surface.
- The waterproof surface can be used for domestic and public pedestrian and vehicular traffic.
- Resistant to detergents, oils, seawater and domestic chemicals.
- Even if the membrane gets mechanically damaged, it can be easily repaired locally with in minutes.
- Does not need the use of open flames (torch) during application.
- Can be walked on, accepts a rough finish to make it non-slip.
- Provides excellent thermal resistance, it never turns soft.

PACKING :

PART A (Resin) 20 kg AND PART B (Hardener) 6.67 kg

SHELF LIFE & STORAGE :

12 months at temperatures between 5°C to 35°C, provided it is stored in a dry place, keep away from direct sunlight, extreme heat, cold, or moisture. Once the bucket has been opened, the product must be used immediately. Once opening, the B side drum must be agitated mechanically before inserting the transfer pumps and use.

PRECAUTIONS :

Preferably store in sealed conventional containers, protected from extreme weather conditions. Clean all tools and application equipment with water before it set. Clean immediately after use. Hardened /cured material can only be mechanically removed.

SAFETY :

- These safety recommendations for handling are necessary for the implementation process as well as in the pre and post, on exposure to the loading machinery.
- Respiratory Protection: When handling or spraying use an air-purifying respirator.
- Skin Protection: Use rubber gloves, remove immediately after contamination. Wear clean body- covering. Wash thoroughly with soap and water after work and before eating, drinking, or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in the air.
- Waste: Waste generation should be avoided or minimized. In cinerate under controlled conditions following local laws and national regulations.

- Vapor and atomized liquids are harmful. Use only in ventilated areas, wear approved respirators, when necessary, keep out of reach of children.
- Do not use near high heat or open flame.

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