

PE-MF100 : EPOXY WATERPROOFING MEMBRANE

TECHNICAL DATA SHEET

DESCRIPTION

is a 100% solids, two component, epoxy urethane hybrid, coating membrane. It is designed to be used as seamless waterproof membrane to protect concrete from water damage. It also offers excellent chemical resistance and protects against common parking deck chemicals. It is skid resistant and offers excellent durability and abrasion resistance. It exhibits very good mechanical properties, such as high elongation and tear resistance.

ADVANTAGES

- Dense surface resistant to bacteria and moisture and easy to clean
- May apply several layers on itself
- Contains 100% solids and is VOC compliant, allowing for interior application without harmful odors
- Excellent adhesive properties, allowing application on other firm and hard coating, as well as a good bond to the substrate
- Superior flexibility
- It is non-flammable and solvent free

PRIMARY APPLICATIONS

- Parking garages
- Mechanical rooms
- Stadiums
- Balconies
- Plaza decks

TECHNICAL DATA PROPERTIES @ 73°F (23°C) AND 50% R.H.

PACKAGING	3.96 US GAL KIT (15 L)
COLOR	Part A: Upon Request Part B: Amber Mix: Upon Request
RECOMMENDED THICKNESS	20 MILS (80 ft ² /gal)
SHELF LIFE	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.
MIX RATIO, BY VOLUME	A:B = 2:1
MIX RATIO, BY WEIGHT	A:B = 100:44
POT LIFE 16OZ (454 G)	30-45 minutes @ 77°F (25°C)
SOLIDS CONTENT, BY VOLUME	100%
SOLIDS CONTENT, BY WEIGHT	100%

DENSITY (KG/L)	Part A: 1.10-1.15 Part B: 0.9-1.0 Mix: -
THINNER RECOMMENDED	Xylene
WAITING TIME/ OVERCOATABILITY	8-12 hours
PEDESTRIAN TRAFFIC	12-24 hours
NORMAL TRAFFIC	> 4 days
HEAVY EQUIPMENT TRAFFIC	> 10 days
BOND RESISTANCE (PSI), ASTM D4541	5 days dry cure, 782 psi
WATER ABSORPTION (%), ASTM D570	0.6
HARDNESS (SHORE D), ASTM D2240	85-95
ABRASIVE RESISTANCE, ASTM D4060 (CS17 / 1000 CYCLES / 1000 G)	0.10 g
VOC (G/L)	Part A: 26.4 Part B: 146.8 Mix: -
VISCOSITY @ 77°F (25°C)	Part A: 4000 – 6000 Part B: 300 – 500 Mix: 2000 - 3000
TRACTION STRENGTH (PSI), ASTM D638	569
ELONGATION %, ASTM D638	300 – 400 %

* Times are approximate and will be affected by changing ambient conditions, especially changes in temperature and relative humidity.

* The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage. *

SURFACE PREPARATION

Old concrete

Concrete surface must be cleaned. BLASTRAC, sand blasting, diamond grinder w/30 grit or coarse, or water blasting is highly recommended to remove surface contaminants. Any oils and fats must be removed prior to product application. Acid etching may be required (followed by a thorough rinsing) to open the pores of the concrete to accept a primer. Do not apply to wet substrates. Chloride, moisture, and pH levels should be checked prior to application.

New concrete

The concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lb/inch²) after 28 days and traction resistance must be at least 1,5 MPa (218 lb/in²). BLASTRAC, sand blasting, diamond grinder w/30 grit or coarser or acid etching (followed by a thorough rinsing) is required to remove the surface laitance that appeared during the curing process. A primer should be used to reduce out-gassing and promote adhesion.

MIXING

Materials should be pre-conditioned to a minimum of 50°F (10°C) prior to use. Thoroughly mix each component separately. Pour component B into component A using the proper mixing ratio of 2A:1B by volume. Mix both components for at least 1 minute using a drill at low revolution (300 to 450 rpm) to reduce trapping of air. While mixing, scrape bottom and walls of container at least once to ensure a homogeneous mix. Only prepare quantity that may be applied during pot life of mixture.

APPLICATION

Light Traffic System (40 mils system total)

1. Apply 20 wet mils of PE-MF100 with proper notched squeegee at a rate of 80 ft² / gallon
2. Allow base coat to cure 8-12 hours, do not exceed 24 hours
3. Apply 20 wet mils of PE-MF100 at a rate of 80 ft² / gallon
4. Immediately broadcast aggregate at rate of 10 – 15 lbs/100 ft² into wet PE-MF100 coating and back-roll to encapsulate
5. Allow minimum curing time of 24 hours before allowing pedestrian traffic on the coating

High Traffic System (60 mils system total)

1. Apply 20 wet mils of PE-MF100 with proper notched squeegee at a rate of 80 ft² / gallon
2. Allow to cure 8 to 12 hours, do not exceed 24 hours
3. Apply 20 wet mils of PE-100 at rate of 80 ft² / gallon
4. Back-roll to level and immediately broadcast aggregate
5. Allow minimum curing time of 8-12 hours, do not exceed 24 hours
6. Apply another 20 wet mils of PE-100
7. Back-roll to level and immediately broadcast aggregate
8. Allow 24 hours before allowing pedestrian traffic

CLEANING

Clean all tools and materials with the cleaner/thinner for epoxies. Wash hands and skin carefully with warm soapy water. Once product has hardened, it may only be removed through mechanical means.

RESTRICTIONS

- Minimum/Maximum temperature of substrate: 50°F / 86°F (10°C / 30°C)
- Maximum relative humidity during application and curing: 85 %
- Substrate temperature must be 5.5°F (3°C) above dew point measured
- Humidity content of substrate must be < 4 % when coating is applied
- Do not apply on porous surfaces where a transfer of humidity may occur during application
- Avoid exterior use on substrates at ground level
- Protect from humidity, condensation and contact with water during the 24 hour initial curing period
- Surface may discolor in areas exposed to regular ultraviolet light

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse.

Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

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