

MBP P.U-FLEX

Modified Aliphatic Polyurethane Waterproofing Membrane

Description: MBP P.U-FLEX is a cold-applied, single-component, modified aliphatic polyurethane waterproofing membrane designed to form a seamless, highly elastic, and durable protective barrier.

PRIMARY USES

- Concrete roofs & structural decks
- Masonry & metal surfaces
- Basements & retaining walls
- Wet areas (bathrooms, kitchens, balconies)
- Concrete walls & parapets

KEY ADVANTAGES

- High tensile strength with rubber-like elasticity
- Excellent crack bridging capacity (> 1.0 mm)
- UV resistant & highly durable against oxidation
- Seamless, protective elastomeric membrane
- Easy application & repair friendly

Standard Compliance: Complies with **ASTM D 2833, ASTM D 412, ASTM D 417, ASTM E 96/BW, and ASTM C 836.**

MATERIAL DATA

Property	Specification
Resin Type	Polyurethane Resin
Available Colors	Blue, Grey, White, Sky Blue
Packaging	20 kg pails
Storage & Shelf Life	10 months in unopened original packaging when stored between 5°C and 35°C

TECHNICAL DATA

Property	Specified Value	Test Method
Solid Content	80 ± 5%	ASTM C 836
Tensile Strength	> 1.5 N/mm ²	ASTM D 412
Elongation at Break	600 ± 25%	ASTM D 412
Shore A Hardness	55	ASTM D 624
Tear Resistance	> 15 N/mm	ASTM D 1004
Resistance to Bacteria	No Attack	ASTM D 4299
Resistant to Algae	No Attack	ASTM G 29
Water Vapor	< 10.0 gm/m ² /day	ASTM E 96
Transmission Service	Up to 75°C	ASTM D 2485
Temperature Chemical Resistance	Resistant to Alkalis, Sodium, and 10% HCl (No Effect)	Internal / ASTM

APPLICATION DETAILS

Surface Preparation: Substrate must be structurally sound, clean, and free from dirt, dust, laitance, grease, and loosely adhering particles. Absorbent cement-based surfaces should be thoroughly saturated with water to achieve a Saturated

Surface Dry (SSD) condition. All cracks larger than 1.0 mm should be filled with a suitable cementitious concrete repair mortar.

Mixing & Method of Application:

- 1. Water Addition: Add 10% water by weight for consistency adjustment.
- 2. For large volume mixing, use a low-speed mechanical drill mixer and mix thoroughly for 3 minutes.
- 3. Apply MBP P.U-FLEX directly to the prepared substrate using a brush or roller evenly over the area.
- 4. Apply a minimum of 2 coats at 1.0 mm DFT per coat in cross-directions to prevent pinholes.

Theoretical Spreading Rate	1.0 kg/m² @ 1.0 mm DFT (Minimum 2 coats required)
Curing Time	3 days from the date of final coat application

Important Note: Surfaces subjected to continuous splashes or permanent immersion with water must be allowed to dry and cure for at least **5 days** before filling with water or commissioning.

SAFETY & LIMITATIONS

Protection Measures: MBP P.U-FLEX is an aliphatic polyurethane formulation. Contact with eyes carries a risk of cauterization, and skin contact may cause dehydration or mild irritation. Always wear safety goggles and protective gloves during mixing and application.

- **Skin Contact:** Wash off immediately with plenty of clean water and soap.
- **Eye Contact:** Rinse immediately with clean warm water for at least 15 minutes and seek mandatory medical attention.

Transportation: Non-hazardous material.

Remarks & Limitations: MBP P.U-FLEX should not be applied directly onto gypsum or gypsum board surfaces, or under conditions of continuous immersion unless specifically advised and approved in writing by the manufacturer.

MILLWALA BUILDING PRODUCTS
HeadOffice:F-22,GraceCentre,Khayaban-e-Hafiz, Gizri DHA,
Karachi, Pakistan.
Website: www.mbp.com.pk

Mobile / WhatsApp: +92 300 8256534 | +92 339 4132003
Office Phone: +92 21 35866289
Email: mbp.khi@gmail.com