

# ARMOFLOOR MB4

## Two Component Elastomeric Polyurethane Membrane

### Description:

ARMOFLOOR MB4 is a high build elastomeric two component liquid applied waterproofing membrane based on polyurethane resins. When cures, it forms an impermeable membrane with high elasticity, crack bridging and resistance against abrasion and chemicals. ARMOFLOOR MB4 is designed to be used where a flexible water proofing membrane is required as a part of an integrated system in a car park deck coating and water proofing system for multi store parking area.

ARMOFLOOR MB4 cures to form a highly dense seamless continuous monolithic membrane that has excellent adhesion to concrete substrates with high flexibility and high waterproofing features.

### Uses:

ARMOFLOOR MB4 can be applied as a water proofing membrane at:

- Intermediate layer in car parking flooring systems.
- Car park deck.
- Intermediate layer in docking areas, bays to provide flexibility.
- Intermediate layer in cold stores to accommodate for temperature change and act as water proofing membrane.

### Advantages:

- High build liquid applied membrane in single application
- Fast drying chemically cured product.
- High chemical and abrasion resistance.
- Elastomeric water proofing system after curing.
- Highly flexible to be applied where movement is expected.
- Crack bridging ability, waterproofing membrane in car park systems.

- Chemical resistant to detergents, cleaning materials, oil and grease.
- Provides superior wear and weather ability for parking deck and contaminating areas.

### Instructions for Use:

ARMOFLOOR MB4 should be applied by specialist contractors who must follow the Product Method Statement. Consult with MATEX Technical Department for a list of approved applicators.

### Surface Preparation:

All surfaces should be sound, clean, dry and free from loose material, efflorescence, laitance, curing compounds, dirt, oil and grease. Ensure that concrete surfaces are cured for at least 28 days with moisture content not exceeding 5%. Apply sand blasting or mechanical preparation means for the surface prior to application to ensure a proper mechanical grip for the surface, to ensure best adhesion of material.

After preparation, apply repair to all defected areas by applying LAVAREP and LAVAPOXY range of concrete repair. Let the repairing material cures before proceeding with the application. Consult with MATEX technical team for recommendation. In order to seal the substrate and to ensure a perfect bonding, apply a rich coat of primer ARMOPRIME PU or ARMOPRIME EP100 to the surface in a spread rate of 8 to 10 m<sup>2</sup>/Lt. If greater adhesion is required, create a mechanical key between the substrate and the membrane by spreading quartz silica sand on to the primer while it is still wet. After it dries, brush out the loose quartz and vacuum the surface to ensure complete cleaning.

### Mixing:

ARMOFLOOR MB4 is a two component product. With a low speed mixer (200-300 rpm) stir the contents of Part A (base) for a minute, then add the contents of Part B (hardener) and mix slowly for 3-5 minutes till a

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homogenous mix is reached. Transfer the content of the mix into a separate clean container and mix for further 30 seconds. Leave the mixed material for a period of 2 minutes to release entrapped air within the mix.

## Application:

ARMOFLOOR MB4 can be applied with a roller, trowel, brush or spray machine. The mixed material is poured onto the primed surface and spread evenly with a notched trowel. Continuous spiking with a spiked roller is to be done to remove all entrapped air. Spiking adjacent layers is recommended to be done at 50% overlaps. Spiking shall stop as soon as the coating starts to set.

ARMOFLOOR MB4 is an intermediate layer in an epoxy or polyurethane multi-layer car park systems with waterproofing feature. It requires the application of a top coat of the ARMOFLOOR Epoxy or polyurethane range.

## Standards:

- ASTM D2240, ASTM C836, ASTM D624, ASTM D412, ASTM D4060

TECHNICAL PROPERTIES	
Color	Neutral
Density	1.45 ± 0.03 kg/lit
Pot life@25°C	30 minutes
Application Temp.	+5°C to +40°C
Touch Dry	8-12 hours
Full Dry	7 days
Complete Curing	7 days
Adhesion to concrete (ASTM D4541)	>2.0 N/mm <sup>2</sup>
Shore A Hardness (ASTM D2240)	50
Crack bridging (ASTM C836)	Passes 2.0 mm
Tensile strength (ASTM D412)	>5.0 N/mm <sup>2</sup>
Elongation at Break (ASTM D412)	300 %
Tear Resistance (ASTM D624)	18 N/mm
Water vapor transmission (ASTM E96)	0.3 g/h/m <sup>2</sup>
Chemical Properties:	

Acidic solutions	Resistant
Alkali solutions	Resistant
Sea, brackish water	Resistant
Oil and grease	Resistant
Detergents	Resistant
Thinners and solvents	Moderate Resistance
Service Temperature	-5°C to +80°C

\*Values indicated may vary depending on the environment and conditions of the material. Figures given are tested according to standard laboratory conditions.

## Coverage:

ARMOFLOOR MB4 achieves coverage of 2.0 m<sup>2</sup> per liter @ 500 micron dry film thickness.

\*Coverage rate is an approximate value, and subject to actual site conditions.

## Packaging:

ARMOFLOOR MB4 is available in a set of 4 and 15 liter supplied in metal dual pack.

## Storage:

Store in original packing in dry conditions away from direct sunlight and in a temperature-controlled warehouse. Store at +15°C to 25°C

## Shelf Life:

ARMOFLOOR MB4 can be utilized within 12 months of production date if stored in proper conditions in an unopened original packing.

## Cleaning:

Clean all tools with ARMOSOLVENT before product hardens. Hardened material can only be removed mechanically.

## Remarks:

- ARMOFLOOR MB4 should not be applied onto surfaces likely to suffer from rising dampness or moisture content.
- ARMOFLOOR MB4 should not be applied at ambient temperature less than 5°C.
- ARMOFLOOR MB4 should not be applied to asphalt, weak or friable concrete, PVC tiles or asphalt sheet substrates.

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- ARMOFLOOR MB4 should not be applied if the surface relative humidity is more than 75%.
- All existing expansion or movement joints should be followed through the new floor surface.
- ARMOFLOOR MB4 may change color or fade if exposed to sunlight but this has no effect on its performance characteristics.
- Pay attention to aggressive cleaning cycles and temperatures of both chemicals and cleaning regimes.
- Prior to application, ARMOFLOOR MB4 kits should be stored under cover in air conditioning and protected from extremes of temperature which may cause inconsistent workability, finish and cure times of the mixed material.

## Health and Safety:

Avoid contact with eyes and skin. Wear suitable protective clothing such as coveralls, goggles, dust mask and gloves. Use barrier cream. Ensure that there is adequate ventilation. Do not breathe vapour or spray mist.

### FIRST AID:

- Eyes: In the event of accidental splashes, flush with warm water and seek medical advice.
- Skin: Wash skin thoroughly with soap and water
- Inhalation: Remove to fresh air, keep patient rested
- Ingestion: Do not induce vomiting. Seek immediate medical attention.

For further safety information, please refer to ARMOFLOOR MB4 Material Safety Data Sheet.

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