

## Mahaguard<sup>®</sup> BPU

### Bitumen Modified High Build Elastomeric Polyurethane Based Waterproofing Liquid Membrane

#### Description

**Mahaguard BPU** is one component moisture curing bitumen modified high performance polyurethane elastomeric waterproof cold applied membrane. It is highly durable waterproofing coating having excellent root resistance. It is breathable that allows trapped water vapors to escape from the roof without blistering.

#### Features / Advantages

- Non-toxic
- Water based product, hence, an eco-friendly product
- Highly flexible will not brittle at wider temperature range, can be applied in moist roof also
- Excellent water vapour barrier
- One component, ready to use. Cold apply so simple application and there are no joints in the membrane.
- Mechanical damage to the membrane can be easily repaired by spot application
- Highly elastic, cures to give a permanently flexible resilient barrier over a wide range of temperatures,
- Rapid installation; significantly reduces time spent on preparatory works and detailing, Excellent adhesion, can be applied to a wide range of substrates.
- Impervious - outstanding barrier properties ensure protection against corrosive soil conditions.
- Thermally stable - irreversible chemical cure eliminates melting and flow at high temperature
- Root cannot penetrate from membrane - Anti-root properties
- Good Adhesion to various substrate.
- Multipurpose – economical.
- Prevent mould and algae formation

#### Typical Application

Foundations, Basements, Tunnels, Ground Floors, Suspended floors, Car Decks, Roof Terraces, Balconies, Patios, Bridges, Precincts, and Inspection pits water retaining structures (not potable water), Sewage Tanks, and Inverted roofs. The excellent chemical resistance of Mahaguard BPU makes it particularly suitable for tanking applications in areas where aggressive ground water conditions prevail.

#### Standard Compliance

Mahaguard BPU meets the requirements of ASTM C836

#### Technical Information

PROPERTIES	STANDARD	RESULTS
Appearance		Black colored viscous liquid
Specific gravity	(IS 101/1964)	1.55 ± 0.1
Solid Content (%)	(IS 101/1964)	78 ± 2
Elongation (%)	(ASTM D 412)	> 500
Tensile Strength	(ASTM D 412)	> 1.5 N/mm <sup>2</sup>
Water Vapour transmission for 1.0 mm film		8.5 g/m <sup>2</sup> /24 hrs.
Permeability	(ASTM E 96)	Passes test
Recovery after 100 % elongation	(ASTM D 412)	> 85
Shore A hardness	(ASTM D 2240)	> 60
Drying Time		45-50 min depending upon temp/ humidity

#### Methods of Application

##### Surface preparation

All surfaces to be waterproofed should be sound, clean and dry. Concrete surfaces should have a light steel-trowel followed by a fine hair broom or equivalent finish which is dry and free of dust, oil and other contaminants. All high spots should be removed. Moss and laticence must be removed physically followed by treatment with fungicidal wash to kill any spores and inhibit further growth. After treatment wash down thoroughly with clean water and allow drying. All metal surfaces should be made clean of paint, oils, rust and other contaminants.

##### Priming

Priming is not normally required on good quality concrete substrates. However, absorbent surfaces such as porous concrete sand/cement and cement boards will require sealing to prevent absorption of Mahaguard BPU. This should be done using Mahaguard Uniprime or a 1:1 mixture of Mahaguard BPU & water. For non-porous substrate use solvent base primer.

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#### Cracks

All shrinkage and non-moving structural cracks should be pre-treated with a polymer modified mortar or sealants. Allow to cure overnight before general application.

#### Application

- Mahaguard BPU is a membrane coating, not paint and as such protection is only achieved with a high film build, i.e. 1 mm minimum on flat surfaces. The membrane can be applied in 1 mm coat or two 0.5 mm coats, maintaining min DFT of 1mm & above.
- Two coats are recommended on uneven and jointed surfaces to minimize the possibility of thin patches, missed areas and pin hole. Also sloping or vertical surfaces will only accept 0.5 mm per coat. In the case of two-coat application, it is important to re-coat within 24 hours of the first coat becoming sufficiently cured to allow operator access.
- The minimum application life (after opening the pack) is up to 48 hours if stored in closed containers.
- A short haired synthetic coating brush should be used.
- If a water test is to be done, the membrane should be fully cured. Minimum 72 hrs.
- For better results use Glass Fiber Reinforcement embedded into 1st coat of Mahaguard BPU Coat while 1st coat is wet. Apply 2nd coat after 8 to 10 hrs of 1st coat.
- The dry film thickness (DFT) of Mahaguard BPU should not be less than 0.5mm or more than 1.0 mm for each coat. Rough or textured surfaces will reduce the coverage rate and consequently more material must be allowed to achieve the minimum DFT.

#### Curing and Protection

- Mahaguard BPU must be cured for a minimum of 24 to 48 hours @ 25°C before placing protection. Where damage to the membrane is possible (by traffic, backfilling, etc.) it should be protected by a cementitious screed or protection boards. A dust coat of cement or separation sheet should be used to prevent adhesion of the membrane to the boards. Where a bond with the topping is not required, a separator sheet should be used.
- To prevent damage to the membrane it is recommended that Mahaguard BPU is laid in strips of 1 meter width to permit the application of a screed or Protection Board from the uncoated area.
- All exposed areas of Mahaguard BPU should be coated with Mahaguard Wallcoat white to ensure maximum resistance to ultraviolet radiation.
- Do not store material in opened container for a long time.



#### Packing

1kg, 5kg & 20kg



#### Storage and Shelf life

Store in a cool and dry place under shed away from heat. Shelf life is 1 year in original unopened conditions.



#### Consumption

1.3 - 1.7 kg/m<sup>2</sup> in two coats and DFT is 1mm



#### Cleaning of Tools & Equipments

Tools and equipment should be cleaned with water immediately after use.

#### Ecology, Health and Safety

Health & Safety instructions, all chemicals should not come in contact with skin and eyes or be swallowed. Protective gloves and goggles should be worn.

If contact with skin occurs, wash well with soap and water.

Eye contamination should be washed thoroughly with clean water and medical advice sought. If swallowed seek medical attention immediately. Do not induce vomiting.

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### Disclaimer

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Our guarantee applies within the context of the statutory regulations and provisions in force, current professional standards and in accordance with the stipulations set out in our general sales conditions.

The information detailed in the present technical data sheet is given by way of indication and is not exhaustive. The same applies to any information provided verbally by telephone to any prospective or existing customer.

# Mahafix

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