

MASTERPREN[®] 1010

Self-adhesive, polymer-modified bituminous waterproofing membrane

DESCRIPTION

MASTERPREN 1010 is a self-adhesive polymer modified bituminous waterproofing sheet membrane, laminated onto a tough HDPE film on one side and a silicone release film on the other.

FIELDS OF APPLICATION

- **MASTERPREN 1010** is recommended for waterproofing or damp-proofing for concrete protection. It may be used for horizontal and vertical application for tanking below ground structures, subways and retaining walls.

FEATURES AND BENEFITS

- Cold applied, self-adhesive and easy to apply.
- Excellent adhesion to vertical and horizontal surfaces.
- Improved heat resistance.
- Excellent resistance to chlorides, sulphates, dilute alkalis and acids.
- Good tear and puncture resistance.
- Water and vapour proof.

TYPICAL PERFORMANCE DATA

Elongation at break	: > 700% (Median)
Tensile Strength, ASTM D412	: 3.4 MPa (Median)
Peel Adhesion strength, ASTM D1000	: 2.4 kN/m width
Puncture Resistance, ASTM G14:2004	: 12.8 N.mm
Behaviour After storage in Aqueous Solutions –	
10% NaCl (sodium Chloride), Saturated Ca(OH) ₂ (Calcium Hydroxide), 5 – 6 % H ₂ SO ₃ (Sulphurous Acid)	: No blisters, peeling or cracking
Hydrostatic water pressure, DIN 16726	: No rupture or leakage

PROPERTIES

Supply form	: Rolled sheet
Thickness	: 1.50 mm
Mass per unit area	: 1.6 kg/m ²
Top surfacing	: HDPE film

APPLICATION

The application temperature should be between 4 °C to 45 °C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the self-adhesive waterproofing system is as follow:

Surface Preparation

The surfaces shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections, protrusions, structurally unsound and friable concrete must be removed and repaired.

Fill surface irregularities such as blowholes, honeycombs etc., with an EMACO NANOCRETE repair mortar to achieve a smooth and level surface. Repair cracks either by resin injection or by caulking depending on the nature of cracks. Where needed, provide expansion joints and seal them with BASF range of construction sealants (see separate data sheets). Consult BASF Construction Chemicals representatives for advice on repair methods.

Priming

Use MASTERPREN Primer or a similar bituminous primer. Apply the primer by brush or roller over the prepared substrate at a rate of 6 to 8 m²/L. Lay the membrane after the primer reaches touch dry state. Prime only an area that can be covered within the same working day.

Alignment

Start the installation of all membrane plies from the low point or drains, so that the flow of water is over or parallel to the piles, but never against the laps. All overlaps at the membrane seams shall be installed so as to have “up” slope laps over “down” slope laps. Begin membrane application by unrolling the roll of **MASTERPREN 1010** membrane and aligning the side laps.

Placing

It is important to lay the membrane without creases.

Peel back the release paper to a length of about 30 cm and stick the membrane onto the prepared substrate, starting preferably from one end of the area.

Unwind the roll in a straight line, without creasing by pulling the release paper carefully. Using a rubber roller, simultaneously smooth the membrane from the centre outwards to the edges for optimum adhesion and to expel any entrapped air. After one roll has been installed and smoothed, lay the next roll with at least 100mm overlap at the ends and 50mm along the

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edges. Ensure total bonding at the overlap by using the roller.

Note: The detailing at external and internal corners and penetrations of pipes, cables, ducts, etc., must be carefully carried out before commencing application of horizontal sections of the membrane.

While covering vertical faces, always start from the top. Chase the membrane into a groove or temporarily batten it to prevent it from falling while laying. The battens can be removed after the whole face has been covered.

Provide suitably designed flashings at the grooves where the membrane is chased in, over the membrane edge on the vertical surface and above every projection from the vertical surface such as pipe lines, ventilators, air conditioners, etc. Consult BASF Construction Chemicals for advice.

At the corners, between the vertical and horizontal, maintain an overlap of at least 100mm. It is recommended that the horizontal area is laid first, followed by the vertical, so that the vertical membrane laps over the horizontal one.

If the membrane has ballooned at a few spots after laying, due to entrapped air or water, puncture the bubbles with a sharp needle. The pinholes will heal by themselves during the smoothing process.

Protection

Temporarily protect the membrane from mechanical damage during application using polystyrene boards or similar approved methods.

After completion, protect the membrane by a screed, paving, soil infill or by lining with tiles to prevent mechanical damage in service.

ESTIMATING DATA

One roll of **MASTERPREN 1010**, after deducting for the overlaps, covers an area of 18.7m x 0.98m. i.e. coverage is approximately 18.33m² per roll. However, slightly higher consumption is possible while treating oddly shaped areas, or where many joints are required.

PACKAGING

MASTERPREN 1010 is supplied in rolls of:

1m width x 20m length

SHELF LIFE

MASTERPREN 1010 can be kept for 12 months from date of manufacture if stored in original unopened packaging, in a dry and shaded area.

MASTERPREN 1010 shall be store on wooden pallets neatly covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight and UV. The membrane shall be protected from all sources of heat.

Excessive exposure to sunlight, UV and other sources of heat will result in considerable deterioration of the product and reduce its shelf life.

PRECAUTIONS

MASTERPREN 1010 contains a tacky bitumen compound which can stick to human skin during application. Bitumen stains can be removed by using a cloth dipped in a light solvent.

For detailed Health, Safety and Environmental Recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

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NOTE

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