

MASTERPREN[®] 2005

Bituminous torch-on membrane for bridge deck

DESCRIPTION

MASTERPREN 2005 is a plastomeric waterproofing membrane, industrially manufactured with a continuous process by impregnation of the reinforcement with a waterproofing composed distilled bitumen, modified with saturated polyolefinic polymers (APP, PAO, EPR). The upper face treated with anti-adhesive sand, of amorphous nature and the lower face coated with thermo-fusible polyolefinic film. **MASTERPREN 2005** is designed according to the German Norm ZTV-Bel. 1/87 Anhang 12.

RECOMMENDED FOR

MASTERPREN 2005 is membrane obtained by the balanced combination of a waterproofing compound and a spunbonded polyester reinforcement with high dimensional stability, both of the highest quality. In order to increase the mechanical resistance on the upper face, as required by the end use of the membrane, the position of the reinforcement is always moved to the higher part of the membrane. As a result, **MASTERPREN 2005** can be used, even in single layer, in any situation where the barrier against water is required. **MASTERPREN 2005** is normally used in situations where high mechanical resistance, high resistance to perforation and high elongation are required.

Other than bridge decks, **MASTERPREN 2005** has also been successfully used to waterproofing tunnels, waster disposal sites, canals and foundation.

FEATURES AND BENEFITS

Impermeable- Protects substrate from the ingress of water borne salts.

Flexible- Bridge active cracks

Coated with amorphous silica-Prevents membrane forms ticking to itself or to other surface white handling. Saves time and labour.

Wide service temperature range-Performs membrane form sticking to itself or to other surface white handling. Saves time and labour.

Good chemical resistance-Allows usage in areas exposed to certain common chemicals.

Waterproofing mass formulated with APP-Improved resistance to ageing and low temperature performance.

High resistance to polluted atmosphere- Service life unaffected in industrial and polluted region.

PERFORMANCE DATA

Elongation at break (DIN 52123)	Long.	:	47
	Tran.	:	49
Tensile strength at break (DIN 52123)	Long.	:	840 N
	Tran.	:	625 N

Thermal characteristics (DIN 52123)		
Cold flexibility	:	-15°C passed
Heat stability	:	140°C passed
Watertightness (DIN 52123) :		4 bar passed

The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

PROPERTIES

Supply form:	Rolled sheet
Colour:	Black
Thickness:	4-5 mm
Mass per unit area:	≈190 g/m ²

ESTIMATING DATA

One roll of **MASTERPREN 2005**, after deducting for the overlap, cover and area of approximately 9.4m² per roll. However, slightly higher consumption is possible while treating odd shaped areas, or where may joints are required.

APPLICATION

Surface preparation

The membrane must be laid on a flat surface having slop ≥1%.

The laying surface should be dry, sufficient cured, clean and free from loose particles, oil, grease or any other contaminant. A high pressure water getting (approximately 150 bars) is recommended. Fill surface irregularities such as blowholes, honey combs, uneven areas with cementitious repair mortar or epoxy based on mortar.

Priming

The laying surface must be treated with a coat of Masterpren Primer or a similar bituminous primer. Apply the primer only an area that can be covered within the working day. Lay the membrane after the primer dries.

Placing

Torching the membrane using a propane gas (or a mix of 95% propane and 5% butane, at a working pressure of 3.5 to 4 bars), heating the substrate and bonding the touches part of the membrane onto the heated area, should be carried out in quick succession. Press the bonded area firmly with a rubber roller and smooth the membrane from the center outwards to the edges for optimum adhesion and to expel any entrapped air. If the membrane has ballooned at a few spots after laying, due to entrapped air or water, puncture the buddle with a



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sharp needle. The pin holes would normally heal by themselves during the smoothing process.

For concrete casting discontinuities and of the joints between prefabricated girders, it is always necessary to apply a potage made with strips of membrane funky bonded on both sides. The width of these strips must be such to cover for at least 10cm both sides of the slit.

Laying of the membrane will have to be done lengthwise to the direction of the traffic. The application shall be made starting from the sides and into the centre of the road; the overlaps will be made towards slope of fall. The membrane shall be fully ended to the support, both on the horizontal and vertical surfae, with 8 cm overlaps at the edges and 12 cm at the ends.

The joints, whether they are tight joints or expansion joints, have to be done in such a way to guarantee the continuity of the waterproofing system.

PACKAGING

MASTERPREN 2005 supplied in rolls 1m wide and 10 m long (10 m2 roll).

SHELF LIFE

Always store **MASTERPREN 2005** rolls in a well enclosed place sheltered from the sun and rain, stacked vertically and at temperatures between 5°C and 30°C.

MASTERPREN 2005 can be kept for 12 months from the date of manufacture, if stored in unopened original packaging and as recommended above.

PRECAUTIONS

For information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF Construction Chemicals** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use. **BASF Construction Chemicals data sheets are updated on a regular basis and it is the user's responsibility to obtain the most recent issue.**

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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