

# MAXSHIELD™ PF 900

**Liquid applied polyurethane waterproofing membrane**

Maxshield PF 900 is a liquid applied, highly permanent elastic, cold applied and cold curing, single component polyurethane membrane used for long lasting water proofing. It is based on pure elastomeric hydrophobic polyurethane resins which result in excellent mechanical, chemical, thermal, UV & natural elements resistance properties.

Cures by reaction with ground & air moisture.

## Uses

- Waterproofing of Roofs.
- Water proofing in Balconies, Terraces, Verandas.
- Waterproofing of Green roof, Flowerbeds, Planter boxes
- Waterproofing of asphalt and bitumen felts, EDPM membranes etc.
- Water proofing of Bridge decks, tunnels, Car Parking etc.

## Benefits

- Simple and easy application
- When applied forms seamless membrane without joints.
- Resistant to water, frost and fast curing
- Thick, bubble free membrane possible
- Provides excellent crack bridging properties
- Good water vapour blocking properties.
- Provides excellent thermal resistance, it never turns soft
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- Provides excellent thermal resistance , it never turns soft.
- Maintains its mechanical properties over a temperature span of -30°C to + 90°C.
- Provides excellent adhesion to almost any type of surface
- The waterproofed surface can be walked on.
- Resistant to detergents, oils , seawater and domestic chemicals.
- Even if membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Does not need the use of open flames (torch) during application.

## Consumption

1.4 -2.5 kg/m<sup>2</sup> applied in two or three layers.

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.

## Properties

Elongation at break (ASTM D412)	>800 %
Tensile strength (ASTM D412)	> 4 N/mm <sup>2</sup>
Water Vapour Permeability (ASTM D412)	>25 gr/Sq.m/day
Tear resistance (ASTM D624)	20 N/mm
Puncture resistance (ASTM E 154)	290 N
Resistance to Hydrostatic pressure (DIN 16726)	No leak
Adhesion to concrete (ASTM D 903)	>2 N/mm <sup>2</sup>
Hardness Shore 'A' scale (ASTM D 2240 (15"))	65
Thermal resistance (80OC for 100 days)	Passed
Service Temperature (Inhouse lab)	-30°C to +90°C
Pot life @20 °C	30-35 min
Rain stability time	4 hours
Light Pedestrian traffic time	12 hours
Final Curing time	7 days
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, sea water and oils

## Instructions for use

### Surface Preparation

Careful surface preparation is essential for optimum finish and durability. The surface needs to be clean, dry and sound, free from any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 5%. Substrate compressive strength should be atleast 20 MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for atleast 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by grinding machine.

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Possible surface irregularities need to be smoothened. Any loose surface pieces and grinding dust need to be thoroughly removed.

**WARNING:** Do not wash surface with water!

## Priming

The concrete surfaces shall be primed with Maxshield Primer and allowed to cure.

## Mixing

### Waterproofing membrane

Stir well before using. Pour the Maxshield PF 900 onto the primed surface and lay it out by roller or brush, until all surface is covered. You can use airless spray allowing a considerable saving of manpower.

After 12-18 hours (not later than 48 hours)

apply another layer of the Maxshield PF 900.

For demanding applications, apply a third

layer of the Maxshield PF 900

**RECOMMENDATION:** We recommend reinforcement of the entire surface, with the Maxshield PF 900 Fabric. Use 5-10cm stripe overlapping.

**ATTENTION:** Do not apply the Maxshield PF 900 over 0.6 mm thickness (dry film) per layer. For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

## Finishing

If a heavy duty, abrasion resistant surface is desired (e.g. Public Pedestrian Deck, Car Parking, etc), apply two layers of the Maxshield PF 900 Top-Coat.

For the several Top-Coats application procedures, please consult their technical instructions or contact our R+D Department.

**WARNING:** The Maxshield PF 900 system is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface.

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## Packing

25 kg, 6kg & 1kg metal pails.

## Colour

Maxshield PF 900 is supplied in white & light Grey colour.

## Coverage

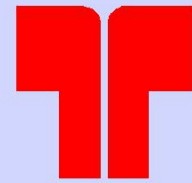
1.4 to 2.5 kg/m<sup>2</sup> applied in two or three layers

## Other segments :

- Concrete Admixtures • Surface Treatments • Grouts & Anchors • Repair & Rehabilitation • Protective Coatings • Industrial Flooring • Waterproofing • Sealants • Adhesives
- Cement Grinding Aids

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