

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 is 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. It cures by reaction with ground & air moisture.

Uses

- Simple and easy application
- Waterproofing of roofs
- Water proofing in balconies, terraces, verandas
- Waterproofing of swimming pools, 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
- Provides water vapour permeability, so the surface can breathe
- 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.
- Anti-root property- Excellent resistance to root penetration.

Consumption

1.4 -2.5 kg/m² 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 ²
Water Vapour Permeability (ISO 9932:91)	>25 gm/m ² /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 ²
Hardness Shore 'A' Scale (ASTM D 2240)	65
Thermal Resistance (80°C for 100 days)	Passed
Service Temperature (In-house lab)	-30°C to +90°C
Rain Stability Time	4 hours
Light Pedestrian Traffic Time	12 hours
Final Curing time	7 Days
Solar Reflectance (SR) ASTM E903-96	0.87
Chemical Properties	Good resistance to acidic and alkali solutions (5%), detergents, sea water & 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 at least 20MPa, cohesive bond strength at least 1.5MPa. New concrete structures need to dry for at least 28 days. Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by grinding machine. Possible surface irregularities

MAXSHIELD[®] PF 900



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.

Packing

MAXSHIELD[®] PRIMER- 4 ltr pack.

Coverage- 5.5 to 6.5 m²/ltr

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 entire 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.

Fabric at problem areas, like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc. In order to do that, apply on the still wet MAXSHIELD[®] PF 900 a correct cut piece of fabric, press it to soak, and saturate again with enough MAXSHIELD[®] PF 900.

RECOMMENDATION: We recommend reinforcement of the entire surface, with the MAXSHIELD[®] PF 900 Fabric. Use 5-10 cm 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.

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.

Shelf Life

Pails should be stored in dry and cool rooms for up to 6 months. Protect the material against moisture and direct sunlight.

Storage Temperature

The product must be stored at 5-30°C. Products should remain in their original, unopened containers.

Packing

25 kg, 6 kg & 1 kg metal pails

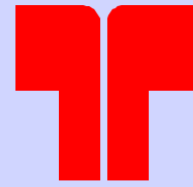
Colour

MAXSHIELD[®] PF 900 is supplied in white & light grey colour.

Coverage

1.4 to 2.5 kg/m² applied in two or three layers

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Website: www.thermaxglobal.com

Thermax Business Portfolio

Chemicals

Absorption Cooling

Air Pollution Control

Boilers & Heaters

Power

Water & Waste Solutions

Solar

Other Segments:

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

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