

# MIXGUARD APP

A P P Modified Bitumen Waterproofing membrane

**Mixguard APP** waterproofing membrane, designed from a rich combination of Atactic Poly Propylene, Bitumen blended together to obtain a weather resistant and water proofing properties. The Polymer modified bitumen coated on to a reinforcement core of non woven spun bond polyester rot-proof fabric. The membrane has excellent mechanical properties and highly resistant to fatigue and is designed for use in structure exposed to high temperature.

## Appropriation

General construction water and damp proofing, basements,  
For swimming pools, lift holes, spill ways  
Sunken slabs - bathroom slabs, kitchen slabs and other wet areas  
Inverted roofs & parapets, terrace, balconies  
For water proofing of water retaining structures - external protection  
To provide protection for concrete against carbonation and chloride attack  
For coating in sea water foundation protection  
Water proofing coating for tunnels and bridges  
Marine walkways, sea water channels, pile heads etc.  
Concrete foundations & Footings

## Characteristics

Good adhesion to almost all surfaces  
Excellent resistant to positive water pressure  
Hard wearing and good dimensional stability under tension  
Excellent water proof and flexible in nature  
High puncture and fatigue resistance  
High tensile and tear strength  
Resistance to waterborne chemicals

## Technical Properties

Properties	Values		Test methods
Thickness	3mm & 4mm	3 & 4mm	DIN EN 1849-1
Mass / unit area (kg/m <sup>2</sup> )	3.0 – 3.3	4.0 – 4.3	DIN EN1849 - 1
Reinforcement Polyester	160	180	DIN EN1849 - 1
Coating asphalt softening point (R&B), °C Penetration @25°C 0.1mm	Styrene Butadiene Polymer Modified Asphalt >150 12 - 25		ASTM D36/DIN EN 1427 ASTM D5/DIN EN 1427
Tensile strength (L/T) (N/5cm)	500/350	800/600	DIN EN 12311 - 1
Elongation @break (L/T) %	30/45	40/50	DIN EN 12311 - 1
Elongation @Peak (L/T) %	25/30	30/35	
Shear resistance @joints (L/T) (N/5cm)	>500/350	>800/600	DIN EN 12317 - 1
Tear resistance (L/T), (N)	140/170	180/200	DIN EN 12310 - 1
Puncture resistance (N)	>450	>550	ASTM E 154
Resistance to static loading	Static : L <sub>25</sub>		DIN EN 12730
Resistance to leakage at joints @5bar	No Leakage		BS EN 12390
Resistance to water pressure	No Leakage		BS EN 12390
Water absorption %	<0.2		ASTM D 5147
Heat resistance @120°C	No Flow		DIN EN 52 123
Low temp flexibility @0°C	No Crack		ASTM D 5147
Resistance to aging	No deterioration		ASTM G 53
Dimensional stability (%)	<0.3		DIN EN 1107 – 1

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## Product management

**Surface preparation:** The surface must be clean and free of oil, grease, dust and any other unwanted residual material and curing compounds. The surface to receive the membrane should be 14 days of age and all the construction joints must be checked for its water tightness and if required inject cement slurry to tight the joint. For sunken application all the cold joints must be thoroughly inspected for its water tightness, extra care must be taken to grout all inlet and outlet pipes carefully with Non shrink grout material Structurally unsound and friable concrete must be removed and repaired with a suitable Mixbuild concrete repair mortar

**Priming:** Apply Mixprime SB (Solvented primer) @4-6 sqr mtr / ltr to the prepared surface by brush / roller. Allow the primer to dry prior to the application of membrane. As the viscosity of the primer is low, it easily penetrates into the concrete pores which promote the adhesion between the membrane and the concrete surface. In addition to that the primer also acts as a binder for the dust on the concrete even after cleaning

## Method of application:

**Alignment:**

Start the installation of all membrane plies from the low point or drains, so the flow of water is over or parallel to the piles, but never against the lap. All overlaps at the membrane seams shall be installed so as to have up slope laps over down slope lap. Begin membrane application by unrolling the roll of Mixguard APP membrane and alignment the side laps. Re roll of the half way and stand on the unrolled portion to prevent shifting. Side overlaps should be a minimum of 100mm and the end overlap 150mm

**Torching:**

Mixguard APP membranes are installed by using a cylinder fed propane gas torch. Use of hand-held roofing torch is recommended as it affords a good control. If multiple burner torching machines are utilized, care must be taken to ensure the application of uniform heat and avoid overheating of the membrane. Begin torching of the embossed polyethylene side of the rolled portion of the membrane. Proper torching procedure involves passing the torch flame in an L pattern applying about 75% of the heat across the substrate, including the lap area of the previously installed membrane. As the membrane is heated the embossing starts to melt away exposing a shiny bitumen surface. Roll forward the membrane and press firmly with the boot or roller against the substrate to bond well. Side and up the lap edge while the membrane is slowly unrolled and adhered to the surface. Subsequent shift of the roll shall be avoided after heating has begun. When one end is complete, re roll the opposite end not yet torched, and install in the same manner.

As subsequent rolls are installed, heat is applied to both the roll and the exposed laps of the membrane being overlapped onto. Be sure to heat the entire roll evenly, not just the lap areas, with extra concentration at the laps.

**Sealing:**

Heat both the overlaps and use round tipped trowel to seal the overlap. Adequate heat is confirmed when an uniform flow of melted bitumen compound flows evenly in a bead that oozes from the applied membranes edges. Excess compound should be smoothed and pressed into the seam using a heated trowel. Any unbounded areas must be lifted and re torched. Do not attempt to reseal by torching the top surface of the membrane.

**Up stand**

Flashing details are accomplished using cut pieces of Mixguard APP membranes in combination with appropriate prefabricated flashing components. The same side lap and end lap rules apply to flashing details as to field membrane. All angles and abutments should be sealed with extra care to ensure full bonding.

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An appropriate flashing membrane shall be lapped with the base membrane and taken up on the parapet wall and tucked into a groove cut into the concrete. The grooves will be sealed with a suitable mastic sealant (MIXFLEX BT)

## Packing & Storage

Roll size

3mm 1 x 10mtr

4mm 1 x 10mtr

MIXGUARD M

4mm 1 x 10mtr

MIXPRIME S41

20 ltr pail

MIXFLEX BT

20 kg pail

Mixguard APP should be stored in cool, dry and shaded warehouses. Shelf life is 12 months when stored under cover, out of direct sunlight and gas cylinders, protected from extreme temperatures and as per recommendations. In extreme tropical climate, the product must be stored in cooled ambience. Extra care should be taken care when working near combustible materials or items which might be scorched by the gas flame. Mixguard APP is no hazardous materials and can be disposed off any regular disposed area.

## Health & Safety

Mixguard APP contains no hazardous substance. As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles shall be worn whilst torching and sealing. Wearing long sleeve overall, safety shoes and face mask is recommended for maximum safety. Bitumen components when applied can stick to human skin, such stains can be removed by using a cloth dipped in light solvent. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately. For more details, please refer to the MSDS released on each Fab product.

Rev. Mar-10/1

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Technical information given in this datasheet is true and exact to the best of our knowledge, laboratory upshot and hands-on application. The datasheets of all products are revised/updated regularly and hence ensure that the latest release is used for reference and recommendation. The date of the publishing is as in this sheet. All data are mean of numerous tests, assessment and analysis conducted under laboratory ambience. Climatic disparity in temperature, humidity, etc. and porosity of substrate may impinge on the values.

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