

# CWC®SMART BITUSHIELD

## APP Modified Bituminous Membrane for Waterproofing

### Description

**CWC®SMART BITUSHIELD** membranes are factory fabricated waterproof sheets of predetermined thickness. These sheets are also known as APP (Atactic Polypropylene) membranes, consisting of a specially formulated bituminous compound of distilled asphalt modified with selected high grade visco-elastic polymers (APP), stabilizers and inert fillers, reinforced with a robust, non-woven polyester reinforcement.

The top surface of the membranes is covered with thin layer of PF film, sand or mineral protection. The bottom surface is covered with Flam-O-Lene (Flammable PE Film). For exposed applications, the top surface is covered with a layer of natural slate flakes (mineral) to protect the membrane from UV rays and physical damage.

### Indicative Characteristics

Appearance	in black / mineral finish
Softening point, °C, ASTM D-36	5±5
Penetration, d mm, ASTM D5	- 30
Tensile Strength, Longitudinal, ASTM D 146	0 ± 100 N/5cm
Tensile Strength, Transversal, ASTM D 146	0 ± 100 N/5cm
Elongation, %, Longitudinal/ Transversal ASTM D 146	±5
Low Temperature Flexibility, ASTM D 1053 (-10°C)	Crack
Water Tightness, UEAtc	0 kPa
Tear strength, Longitudinal, ASTM D 5147	0 N
Tear strength, Transverse, ASTM D 5147	00 N
Heat Resistance, UEAtc	20°C
Water Absorption, ASTM D 570	12% (w/w)
Puncture Resistance, Static/Dynamic Indentation, UEAtc	
Thickness	mm, 4mm
Weight (approx), kg/m <sup>2</sup>	{ (3mm), 4.5 (4mm)

### Domain of Application

**CWC®SMART BITUSHIELD** membranes are ideal for general use in single / multi-layer systems. They are used on low slope concrete roofs, balconies, multi-storied car parks, tunnels, for lining sewerage canals, sub grade structures and any concrete or cementitious flat surface that needs waterproofing.

### Method of Application

#### Surface Preparation

The surface to be waterproofed must be smooth, clean and should be free of depressions and loose aggregate. Any sharp protrusions such as nails, tying wire, etc. should be removed. Cracked concrete should be repaired and any depressions must be filled with mortar. External sharp edges must be chamfered. It is important that the surface is free of oils, grease and dust. Any moisture or condensation must be dried before commencing preparation works. Slabs must be totally dry as moisture left may be trapped inside.

#### Priming

The cleaned concrete surface must be coated with **CWC®SMART BITUPRIME** or **CWC®SMART BITUPRIME WB** which is compatible with the membrane. The primer must be spread evenly and allowed to dry completely. Only the area to be waterproofed on a given day should be coated with primer.

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### Application

**CWC®SMART BITUSHIELD** membranes are fixed by torch welding, known as **Torch-on method**. The rolls are spread over the area, to which they are to be fixed. The rolls are laid so that the next overlaps the first by at least 10 cm along the side-lap. The membrane is then laid out changing the given orientation. They are then rolled once again while heating the underside sufficiently to cause surface melting. End laps should be minimum 15 cm. Avoid excessive and uneven application of heat.

The laps should be heated from the top to produce a thin head of molten bitumen at the seam, which should then be smoothed and cut with a trowel ensuring a properly welded joint. For exposed application, skirting and flashing, **CWC®SMART BITUSHIELD MINERAL** membranes are used. These are specially produced with a layer of natural coloured slate flakes. To facilitate lap joints, end of the roll joints is made by scraping off 15 cm of mineral flakes followed by torch-on.

### Shelf Life & Storage

24 months from the date of manufacturing when stored in dry condition at a temperature range from +5°C to 40°C and away from direct sun light. All rolls must be kept vertically stacked.

### Packing

**1mx10m roll**

### Precautions

- The membranes have no health hazard when used with our standard application recommendations.
- Store in cool, covered area.
- Rolls are to be kept in upright position.
- Keep away from naked flame.
- Hot melt felt may cause serious burn injury, therefore, wear safety goggles, gloves, and safety shoe during application.

### Safety

- Wear hand gloves, safety shoes and safety goggles while using and handling the product.
- In case eyes or mouth are affected wash with plenty of clean water and seek medical treatment immediately.

Before use, refer to the Material Safety Data Sheet. The MSDS is available on [www.cwcchemical.in](http://www.cwcchemical.in)