

## ECMASHIELD APP

### APP Modified Bituminous Membrane for Waterproofing

#### ***Description and Characteristics***

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ECMASHIELD APP (Atactic Polypropylene) membranes are factory fabricated waterproof sheets of predetermined thickness, 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.

#### **Areas of application**

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- Flat or sloped concrete roofs
- Podiums, Car parks
- Tunnels, Lining sewerage canals
- Basements

#### ***Surface Preparation***

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It is important to remove/clean loose particles, dirt, grease from the surface by chipping and washing with suitable equipment such as high-pressure air, water, or wire brush. Treat cracks and construction joints in base surface with Betonseal. The cleaned concrete surface must be coated with Primer. 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.

#### ***Application (Torch-on method)***

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ECMASHIELD APP membranes are designed for easy torch application, known as Torch-on method. Waterproofing performance will depend to a significant extent on application methods. The rolls are spread over the area, to which they are to be fixed. Special care must be taken at joints, which must be overlapped. Membranes must be laid to allow side laps of 8 to 10 cm and end laps of 12 to 15 cm. 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. 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, ECMASHIELD APP 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 are made by scraping off 15 cm of mineral flakes followed by torch-on.

## Precautions

- Rolls are to be kept in upright position
- Hot melt felt may cause serious burn injury, therefore, wear safety goggles, gloves and safety shoe during application
- Store the material in cool and dry place and away from fire

## Technical Specification

Appearance Plain	: black / mineral finish
Softening point, °C, ASTM D-36	: 150±10
Penetration, d mm, ASTM D5	: 15-25
Tensile Strength, Longitudinal, ASTM D412	: 600 ±150 N/5cm
Tensile Strength, Transversal, ASTM D 412	: 450 ± 150 N/5cm
Elongation, %, Longitudinal/ Transversal ASTM D 412	: 40±10
Water Tightness, EN 1928-1	: >10 kPa
Tear strength, Longitudinal, ASTM D 5147	: >50 N
Tear strength, Transverse, ASTM D 5147	: >80 N
Heat Resistance, UEAtc	: ≥120°C
Water Absorption, ASTM D 570	: <0.12% (w/w)
Thickness 3mm, 4mm	
Weight (approx), kg/m <sup>2</sup>	: ~4 (3±0.3mm), ~4.8 (4±0.3mm)
Packing	: 1m x 10m roll
Shelf Life	: 24 months when stored in dry conditions

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