

### Description

**AquaShield®** is uniquely formulated pre-fabricated plastomeric waterproofing membrane with fiber glass reinforcement as its core. **AquaShield®** has an excellent dimensional stability and resistance to weather and ageing. It offers an excellent tensile strength, elongation and superior lap joint strength. The polymer modification of bitumen with Atactic Polypropylene (APP) results in an excellent resistance to hot and cold temperatures.



**AquaShield®** forms an impervious, flexible waterproofing layer which can withstand normal movement of structure without showing any deterioration for a prolonged period of time.

**AquaShield®** is normally used in protected roofing and waterproofing applications in a single layer system and is also recommended as base layer in multilayer system in various applications, including damp-proofing.

**AquaShield®** is supplied in following variants:

Plain finish with thermo-fusible polyethylene film on both surfaces,  
Mineral / natural grey slate finish with thermo-fusible polyethylene film on one surface, while mineral / natural grey slate on the other surface.

### Characteristics - Physical

Property	3 mm and above	Below 3 mm
Penetration @ 25 °C	25 ± 5	15 ± 5
Softening Point, °C	≥150	≥150
Heat Resistance, 120 °C, 2 hr	No flow	
Cold Flexibility, °C	- 3	- 2
Water Absorption, %	0.2	0.2

### Characteristics – Technical

Property	Standard	3 mm & above	Below 3 mm
Elongation, % @ 23 °C	ASTM D-5147		
• Longitudinal		3.3	3
• Transverse		3.3	3
Tensile / Lap Joint Strength, N / 5 cm	ASTM D-5147		
• Longitudinal		350	350
• Transverse		300	300
Tearing Strength, N	ASTM D-5147		
• Longitudinal		60	60
• Transverse		80	80
Puncture Resistance			
• Static Indentation	ASTM D-5602	L – 2	L – 2
• Dynamic Indentation	ASTM D-5635	I – 2	I – 2

### Application

- Damp-proofing.
- Low cost housing projects with small roof areas.
- Small areas, which are subjected to limited stresses.

## Advantages

- Total impermeability.
- Resistance to ageing and weathering.
- Bondability and seam integrity.
- Stability at high temperatures.
- High resistance to impact and puncture.
- Simple, single-layer installation reduces labor and error.
- Cold flexibility.

## Application Methodology

### ➤ Surface Preparation

- Remove all loose gravel, dirt, oil, grease and foreign matter by jet of dry air and clean the surface mechanically or by grinding to make it smooth before application.
- Ensure that the moisture content in the prepared surface does not exceed 5%.
- Correct all construction joints by grouting with ShaliGrout IP at 1 m apart and opening of joints in “V” cut groove and fill with ShaliFix RM C, using ShaliSBR Latex as the bond coat.
- Build-up gradient minimum 1 in 100 with PCC admixed with ShaliPlast LW +.
- Ensure that level of all drain mouth is lower than deck slab level by at least 15 mm.
- Provide 75 mm x 75 mm coving made out of PCC admixed with ShaliPlast LW + and using ShaliSBR Latex as bond coat.

### ➤ Waterproofing Application

- Apply a coat of ShaliTex Primer @ 0.3 L / m<sup>2</sup> and allow it to dry. In areas of high humidity, the prime surface should be left over-night.
- On the primed surface, start laying of membrane at lowest point of the slope roof and progress to the higher point. Unroll the membrane half-way, align the side laps and fix **AquaShield**<sup>®</sup> membranes by using a LPG torch and applying uniform pressure with a roller / wet cloth to ensure to remove entrapped air, if any. Instead of propane torch, you may apply ShaliPrime APP, if so desired and wherever torching is not permitted or not advisable. If ShaliPrime APP is applied, ShaliTex Primer need not be applied.
- Flame should be moved in shape of “L” applying about 75 percent of the heat to the roll and 25 percent to the substrate including the lap area of previously installed membrane. The flame should be moved across the width and upto the lap edge while membrane is slowly unrolled and adhered to the under lying surface.
- Heat both layers of membrane at the overlap and use round tipped hot trowel to seal overlap. Excess compound should be smoothed and pressed into seam using hot trowel. Overlap joint shall be provided of 75 mm in longitudinal direction and 100 mm in transverse direction

### ➤ Protection of Waterproofing

- **For UV protection on non-trafficable roof, SuperThermoLay**<sup>®</sup> waterproofing membrane shall be finally coated with Super Silver Shield.
- For trafficable roof **AquaShield**<sup>®</sup> Waterproofing system shall be protected with PCC dosed with ShaliPlast LW+ of 50 mm thick / tiles loosely laid or fixed, over a separation layer of spot bonded ShaliGeoText 120 / 150 gsm.

## Health & Safety

- Avoid contact with skin / eyes, and avoid swallowing.
- Ensure adequate ventilation and avoid inhalation of vapour.
- Wear suitable protective clothing, gloves and eye protection.
- In case of skin contact, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent to clean the contacted area.
- In case of eye contact, wash with plenty of clean water and seek medical advice.
- If swallowed, seek medical attention immediately. Do not induce vomiting.

## Packing

For 2 mm - 1 m x 15 m, or 3 / 4 mm - 1 m x 10 m

## Storage

Keep in cool and dry place, under shed, away from heat.

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**Advisory Cell**  
**+91 81302 81114**  
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