

# SuperThermoLay®

Non-Woven Polyester Reinforced APP Modified Waterproofing Membrane



## Description

**SuperThermoLay®** is a five layered system with Atactic Polypropylene (APP) modified non-woven polyester reinforced weighing 160 g / m<sup>2</sup> bituminous membrane (2 mm, 3 mm, 4 mm, and 5 mm) for superior waterproofing. This type of membrane shows excellent tensile strength and dimensional stability. The torch side of the membrane is covered with polyethylene film for protection of the membrane. The polymer modification of bitumen with APP results in an excellent resistance to hot and cold temperatures.

**SuperThermoLay® with cold flexibility up to 2°C** 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, and mineral / natural gray slate on the other surface.

## Approvals / Standards

ASTM D 5147, IS 16532 : 2017

## Product Information

<b>Form, appearance, Colour</b>	Black membrane, PE film protection on both sides. Non-woven polyester reinforcement
<b>Handling &amp; Storage</b>	The membranes must be vertically stacked and stored in a shaded area covered by a thick fabric and tied securely in a manner that will minimize exposure to sunlight and UV. The membranes should be protected from all sources of heat and extreme temperatures. <b>Always keep the rolls in vertical position.</b>
<b>Packaging</b>	For 2 mm - 1 m x 15 m, or 3 / 4 / 5 mm - 1 m x 10 m (Tolerance: ± 1%)
<b>Shelf Life</b>	12 months when stored as per recommendations.
<b>Handling Precautions</b>	The membrane is non-hazardous, non-flammable and therefore can be disposed of in any regular disposal areas. All membranes however should be disposed off only after wrapping with paper, plastic or cloth. In case of contact with human skin wash with any soft solvents. Seek medical assistance immediately in case of any allergy.

## Technical Information at 25°C and 50% RH

Property	Standard	Below 3mm	3 & 4 mm	>5 mm
Penetration, dmm	IS 1203	17 ± 3	17 ± 3	17 ± 3
Softening Point, °C	IS 1205 / ASTM D 36	≥150	≥150	≥150
Flow Resistance, 120°C, for 2 hours	IS 13826 - Part 5	No flow	No flow	No flow
Cold Flexibility, °C	IS 13826 Part 2 / ASTM D 5147	Does not crack at +2	Does not crack at +2	Does not crack at +2
Water Absorption, %	ASTM D 5147	0.5 - 1.0	0.5 - 1.0	0.5 - 1.0
Pressure Head Test	IS 13826 - Part 4	No sign of leakage	No sign of leakage	No sign of leakage
Elongation, % <ul style="list-style-type: none"><li>• Longitudinal</li><li>• Transverse</li></ul>	IS 13826 - Part 1 / ASTM D - 5147	45 ± 10 50 ± 10	45 ± 10 50 ± 10	45 ± 10 50 ± 10
Tensile Strength, N / 5 cm <ul style="list-style-type: none"><li>• Longitudinal</li><li>• Transverse</li></ul>	IS 13826 - Part 1 / ASTM D - 5147	650 ± 150 500 ± 150	650 ± 150 500 ± 150	650 ± 150 500 ± 150
Tear Strength, N <ul style="list-style-type: none"><li>• Longitudinal</li><li>• Transverse</li></ul>	ASTM D - 5147	350 ± 100 300 ± 100	350 ± 100 300 ± 100	350 ± 100 300 ± 100

## Field of Application

Waterproofing and damp proofing membrane for the protection of various substrates in wide range of applications:

- Medium to large roof slabs (domestic, commercial, industrial)
- Underground car parks
- Swimming pools
- Bridges & tunnels
- Roof gardens

## Advantages

- Low cold flexibility
- High tensile strength, elongation
- Resistance to atmospheric agents, weathering, chemical attacks
- Good resistance to ageing if applied properly as per proper system
- High flexibility helps application in both hot and cold climates
- High malleability to accommodate difficult applications as well as structural movements

## Application Information

- ✓ **Substrate Temperature** +5°C Min/+45°C Max
- ✓ **Ambient Temperature** +5°C Min/+45°C Max
- ✓ **Substrate Moisture Content** < 5%

## Application Methodology

### ➤ Substrate Preparation

- New concrete should be cured for at least 28 days.
- Cementitious or Mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.
- Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.
- Build-up proper gradient of the surface with PCC admixed with **ShaliPlast IW**.
- Ensure that level of all drain mouth is lower than deck slab level by at least 15 mm.
- 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 FRM**, using **ShaliSBR Latex** as the bond. Provide 75 mm x 75 mm coving made out polymer modified mortar prepared with **ShaliCrete-Cement-Sand (1 : 2 : 5)** after applying a bond coat with **ShaliSBR Latex**.
- The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any primer application

### ➤ Waterproofing Application

- Apply a coat of **ShaliTex Primer / ShaliTex Primer WB** @ 0.3 - 0.5 L / m<sup>2</sup> and allow it to dry till tack free.
- After the primer applied surface gets dried align **SuperThermoLay**<sup>®</sup> on the substrate by unrolling the membrane.
- Re-roll the roll into its original form so that alignment is not disturbed.
- Point the torch towards the primed surface and then on the underside of the membrane. Torch till the compound reaches its softening points.
- The best visual to confirm this is when the embossing on the membrane starts to disappear.
- Roll the membrane forward while firmly pressing it to the substrate so that it bonds. Keep overlap margin for minimum 100 mm between two adjoining membranes for end laps and a minimum of 75 mm for side laps.
- Ensure that a constant flow of bitumen is maintained across the whole width of the roll and that a bead of bitumen is extruded from all edge which demonstrates that a good seal has obtained.
- All angles & abutments upstands should be sealed with extra care to ensure perfect bondage. Seal the edges well into grooves & protect seal with a polysulphide / polyurethane sealant, namely, **ShaliSeal PS GG / ShaliSeal PU GG**.
- **SuperThermoLay**<sup>®</sup> applied all over the terrace must be finished with a coating of **SuperSilverShield** for non-trafficable area. For foot trafficable area, overlay with PCC dosed with **ShaliPlast IW** of 50 mm thick / tiles loosely laid or fixed.

## Precautions

- Do not apply during rain or extreme temperature.
- Any naked flame should be kept away from gas cylinders.
- Avoid abuses which may lead to puncturing of membrane.
- Do not overheat **SuperThermoLay**<sup>®</sup> membrane i.e., avoid heating when it starts smoking.
- Apply parapet to parapet to envelope the entire building for long term performance.

## Value base of product data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.






## Health and Safety information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent **Material Safety Data Sheet**.

- Store in a cool, dry place. Keep out of reach of children and away from eatables.
- May be harmful if swallowed.
- In case of ingestion seek immediate medical attention.
- Eye protection during application is recommended. In case of skin contact, wash with soap and plenty of water. Get medical attention if irritation develops or persists
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- In case of skin contact, wash with soap and plenty of water. Get medical attention if irritation develops or persists.
- It is recommended to wear suitable nose pad during torching application and surface preparation. Dispose as per recommendation mentioned above.

## More from STP Limited products

A wide range of Bituminous waterproofing membranes are manufactured by STP Limited which includes:

-  **SuperThermolay SBS**
-  **SuperThermolay AR**
-  **SuperThermolay minus 5°C**
-  **SuperThermolay FR**
-  **SuperThermolay 7**



**STP Limited**  
*Enhancing Structures' Life*

### Product Range

- Waterproofing and Insulation ■ Road Surfacing
- Sealants and Additives ■ Pipeline Coating
- Protective / Anti-Corrosive Coating ■ Epoxy Flooring
- Grouts / Admixtures ■ RestoFix- Repair / Rehabilitation
- Other Construction Chemicals



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