

# ShaliTPO PR

Thermoplastic Polyolefin - Polyester reinforced single ply membrane



STP Limited

## Description

**ShaliTPO PR** is a single ply thermoplastic polyolefin, reinforced with polyester scrim roofing membrane with an excellent impermeability to water and moisture, the joints are hot welded to form a continuous water tight seam. **ShaliTPO PR** has also high UV resistance and high solar reflection keeping the roof cool.

## Characteristics

Property	Test Standards ASTM D 6878	ShaliTPO PR (1.2 mm)	ShaliTPO PR (1.5 mm)
Nominal Thickness   mm; ASTM D751	0.99 Min.	1.2 ± 10 %	1.5 ± 10 %
Thickness	>30% of total thickness	35% Min.	35% Min.
Typical Weight   kg / m <sup>2</sup>	NA	1.28 ± 10%	1.60 ± 10%
Elongation at Break   %, MD / TD; ASTM D 751 15	15% Min.	15 Min. 25 Typical	15 Min. 25 Typical
Breaking Strength   LBF; MD / TD; ASTM D 751 GRAB Method	220 Min.	225 Min. 250 Typical	230 Min. 260 Typical
Tearing Strength   LBF; MD / TD; ASTM D 751	55 Min.	55 Min. 70 Typical	55 Min. 70 Typical
Brittleness Point   °C; ASTM D 2137	-40°C	Pass	Pass
Linear Dimensional Change   %; 6 hrs. @ 70°C; ASTM D 1204	± 1% Max	< 1%	< 1%
Ozone Resistance   100 pphm, 168 hrs.; ASTM D 1149	No Cracks @ 7% Magnification	Pass	Pass
Water Absorption   %; 66 hrs. @ 70°C TOP;	± 3% Max	< 3.0%	< 3.0%
Factory Seam Strength   LBF; ASTM D 751 GRAB Method	66 Min.	66 Min. 80 Typical	66 Min. 80 Typical
Water Vapour Permeance   perms; ASTM E96, Procedure B	No requirement	0.10 Max	0.10 Max
Puncture Resistance   LBF; FTM 101C	No requirement	250	300
Weather Resistance   kJ / (m <sup>2</sup> .mm); ASTM G 155	10,080 Min.	> 21,600	> 21,600
Field Seam Strength   LBF; ASTM D 751 GRAB METHOD	No requirement	40 Min 60 Typical	40 Min 60 Typical
Solar Reflectance Index	No requirement	100	100
Reflectivity   ASTM C 1549 No	No requirement	0.79	0.79
Emissivity   ASTM C 1371	No requirement	0.909	0.909

## Features & Benefits

- Supplied in pre-manufactured standard thickness.
- Outstanding puncture resistance, high breaking and tearing strength, with very high peel strength of seam joints and heat welds.
- Chlorine free, plasticizer free, phthalate free, environmentally friendly and safe for humans.
- Exceptional resistance to heat, UV, Ozone, bacteria, chemical, acid corrosion.
- Resistance to root penetration, suitable for green roofs and below ground applications.
- Continuous serviceability from -30°C to 100°C, without cracking, tearing or brittleness failure.

## Application

For Waterproofing on Metal, Wooden and RCC terraces of any shape.

## Advantages

- Easy to handle and install
- Easily repairable
- Excellent Impermeability to water ingress
- Efficient hot air welded seam
- U V Resistance
- Cool Roof due to high solar reflection

## Application Methodology

- Remove all loose gravels, dirt, oil, grease and other foreign particles by jet or dry air and clean the surface mechanically or by grinding to make it smooth before application.
- PCC / cementitious coving of 75 mm radius shall be provided at all junction between vertical and horizontal faces.
- Lay **ShaliGeoText 300** GSM loosely as a base layer with an overlap of 50 mm.
- Lay **ShaliTPO PR** of desired thickness and fix it mechanically with anchor of suitable size and adequate number depending on the air velocity in the respective areas.
- Provide overlap joints of 75 mm to 125 mm in both longitudinal depending upon fixing longitudinal and transverse direction of the **ShaliTPO PR** and sealed properly with hot air welding only.
- Terminate **ShaliTPO PR** at the top of parapet wall with termination strip and fix it by screw at 300 mm c/c.
- All termination strip shall be sealed with water lock sealant a back and **ShaliSeal PU GG** on top.

## Health & Safety

- Use hand gloves and goggles during application.
- Clean hand with soap water after application.

## Packing

2 m width x 20 meter length, Membrane thickness - 1.2 mm & 1.5 mm

## Storage

Store rolls horizontally on pallets or shelving in a dry area under shed at ambient temperature and away from source of ignition.



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