



# PMT-3020L

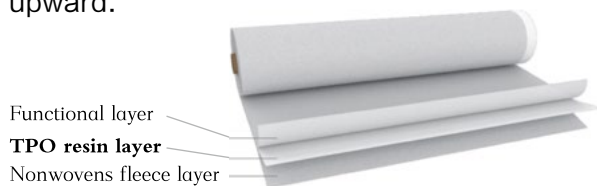
## Thermoplastic Polyolefin (TPO) Waterproofing Membrane

### Product Description

PMT-3020L Thermoplastic Polyolefin (TPO) Waterproofing Membrane of Oriental Yuhong is made by co-extrusion with high-quality TPO resin as the main raw material, as well as flame retardants, light shielding agents, antioxidants, light stabilizers, non-woven fabric, and other materials, which is curled in a cylindrical shape. The core paper is made of pulp fibres, and the product are packaged in nylon bags externally.

The layers of the sheets from top to bottom are surface functional layer, TPO resin layer, and non-woven fabric layer, respectively.

The surface functional layer is of colourless transparent resin patented by Yuhong, and the TPO resin layer is white. These two layers are hot pressed with the non-woven fabric layer in the factory, and an 80 mm wide non-woven fabric area left for sheet overlapping is reserved on the long side of the sheet. When used, the white side is laid upward.



### Packing and Specifications

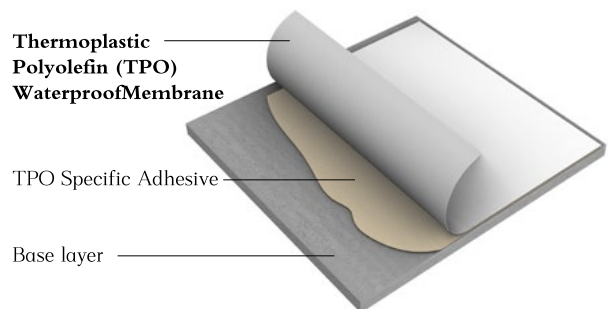
Item	Description	
Product category	Resin composite sheet	
Width (m)	2.0	
Thickness (mm)	1.2	1.5, 1.8,
Length (m)	30	25
Coverage (m2/roll)	60	50

Remarks: Membrane Sizes can be customized.

### Features & Benefits

- Hot air welding – Homogenous Joints.
- Excellent Weather Resistance and Durability (No plastizer in TPO that affects service life).
- Excellent Low Temperature Resistance (Membrane flexibility maintained even at  $-40^{\circ}\text{C}$  .
- Energy Saving ,Environmental Friendly, Excellent reflectivity that can reflect most of the sunlight radiation thus reducing energy consumption.
- Variety of colors are available and patented function layer on the surface are not easy to adsorb dust, which is beneficial for maintaining a higher solar reflectivity coefficient.

### System Structure



Remark: The figure shows the construction method of the concrete base system.

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## Typical Properties and Characteristic

Test Items	Technical Indicator	Typical Value
Tensile strength (GB/T 18173.1-2012)	Normal temperature (23°C)	≥ 60 N/cm
	High temperature (60°C)	≥ 30 N/cm
Elongation at break (GB/T 18173.1-2012)	Normal temperature (23°C)	≥ 400%
	Low temperature (-20°C)	≥ 300%
Low-temperature bending (GB/T 18173.1-2012)	No cracks at-20°C	No crack at-40°C
Tear strength (GB/T 18173.1-2012)	Horizontal direction	≥ 50 N
	Longitudinal direction	≥ 50 N
Heating expansion and contraction quantity (GB/T 18173.1-2012)	Expansion	≤ 2 mm
	Contraction	≤ 4 mm
Hot air ageing (at 80° C×168 h) (GB/T 18173.1-2012)	Tensile strength retention rate	≥ 80%
	Tensile elongation retention	≥ 70%
Alkali resistance [saturated Ca(OH) <sub>2</sub> solution, at 23° C×168 h](GB/T 18173.1-2012)	Tensile strength retention rate	≥ 80%
	Tensile elongation retention	≥ 80%
Artificial weathering (GB/T 18173.1-2012)	Tensile strength retention rate	≥ 80%
	Tensile elongation retention	≥ 70%
Adhesive peel strength (between sheets) (GB/T 18173.1-2012)	Standard test conditions	≥ 1.5 N/mm
	Soaking retention rate (at 23° C×168 h)	≥ 70%
Composite strength (3020L type surface with core layers)(GB/T 18173.1-2012)	≥ 0.8 MPa	1.7

Remark:

The technical indicators and typical values of 1.5mm products are shown in the table. The above membrane testing results can be provided. For other product performance specifications, please refer to the corresponding product test report.

## Transportation & Storage

(get organize in format and layout by designer)

- Storage at sheltered areas (Temperature shall not be higher than 46°C ), prevent membrane to be in contact with acid, alkali, oil and organic solvents.

- When transporting, prevent tilt position and cover goods if possible.

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## Application Method

- Clean the base layer: The concrete surfaces shall be solid, flat, dry, and clean.
- Pre-lay sheets: TPO sheets shall be laid according to the predetermined position, and should be flat, straight, and without twisting or crossing.
- Apply adhesive: The waterproof layer of the main body is bonded to the surfaces using a supporting adhesive.
- Chloroprene adhesive should be evenly applied to the base layer and the bottom surface of the sheets, and other adhesives should be applied following the supplier's construction guidance plan.
- Bond sheets: When using chloroprene adhesive, after brushing the adhesive between the surfaces and the bottom surface of the sheets, the adhesive shall be air dried. When touching the adhesive with your fingers without sticking feel, the adhesion between the sheet and surfaces can be carried out, avoid air between the membrane and the base layer causing bulgin; when using other adhesives, the supplier's construction guidance plan shall be followed.
- Process the detail nodes: For details such as concave and convex corners, pipe roots, the homogeneous TPO sheets shall be used for node processing and weld it with the main sheets.

(For more construction details, please refer to our construction video or the construction plan provided by the engineering contractor.)

- Use a dedicated cutting knife to cut the damaged area of the sheet into regular shapes, keeping the cutting edge flat.

- Use a specialized cleaning agent to clean the sheets within 100 mm of the cutting edge.
- Cut a homogeneous TPO sheet with a shape larger than the cutting edge, cover it on the cutting edge, and form an overlap with the main sheet. The overlap width shall be  $\geq 80$  mm.
- Use a pressure roller and a handheld welding tool to weld the homogeneous TPO sheet with the main coil by hot air welding.

## Application Areas

It is suitable for waterproofing systems that directly apply adhesive to the base layer of building roofs.

## Precautions

- Read the product label and Material Safety Data Sheet (MSDS) before using it. Users should acquaint themselves with all risks & safety phrases.
- Conform to manufacturer's recommendations, material handling and storage specifications.
- Protect all materials from extreme temperature.
- Store and transport rolls in such a manner to prevent bending of the inner core and membrane edge damages.
- To prevent work interruption, it is important to have all the necessary tools and equipment on the job-site when you begin.

## Product Liability

- The above information and suggestions are based on our experience and are for reference only.
- Since Oriental Yuhong Company and its dealers cannot control the storage and handling conditions after delivery, Oriental Yuhong shall not be liable for any quality issues caused by improper use.
- No technical information shall be provided to any third parties without manufacturer's consent.