

CHEMPLAN TPO MEMBRANE

TPO WATERPROOFING MEMBRANE

DESCRIPTION

CHEMPLAN TPO waterproof membrane is a high performance waterproofing sheet crafted from a blend of ethylene, propylene rubber, and polypropylene, combined into a thermoplastic polymer resin. Enhanced with antioxidants, anti-aging agents, and softeners, and produced using advanced technology, this membrane offers the durability of ethylene propylene rubber and the weldability of polypropylene. It maintains high elasticity at normal temperatures and can be shaped at high temperatures similar to plastic. The integrated woven polyester fabric reinforcement provides exceptional tensile strength, fatigue resistance, and long-lasting performance.

PRODUCT FEATURES

- ⇒ Combines the benefits of EPDM's fatigue resistance and PVC's weldability.
- ⇒ Excellent resistance to punctures, chemicals, and environmental factors.
- ⇒ Can be welded in water for better durability.
- ⇒ Contains no plasticizers, ensuring excellent flexibility retention.
- ⇒ Provides reliable water and vapor-proof protection.

APPLICATION INSTRUCTIONS

Pre-Paving: Prepare the site and pre-pave the membrane according to the specific situation. For installations on profiled steel roofs, ensure the membrane is laid perpendicular to the direction of the steel sheets.

Membrane Fixation: Secure the membrane using the appropriate design tools. Cut the membrane as necessary to fit the installation area.

Welding: Weld the membrane joints using a welding gun or machine, following the relevant standards and guidelines.

Special Fixation and Sealing: After the large area construction is completed, provide extra fixation and apply sealant around deformation joints, skylights, and areas extending out of the roof to ensure proper sealing.

APPLICATION METHOD

| Model | Mechanical Fixation Method | Fully-adhered Method | Border Adhesion Method |
|------------------|----------------------------|----------------------|------------------------|
| TPO membrane (H) | X | ○ | ○ |
| TPO membrane (L) | X | ● | ● |
| TPO membrane (P) | ● | ○ | ○ |

● Suggested ○ Optional X Not Recommended

TYPE



WATER
PROOFING

ADVANTAGES



CHEMICAL
RESISTANT



PUNCTURE
RESISTANT

COMPONENT

1

PART

CHEMPLAN TPO MEMBRANE

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TECHNICAL SPECIFICATION

| Properties | H | L | P |
|---|---------------------------|-----|------------------|
| ✓ Resin thickness on the middle reinforcement (mm) \geq | - | - | 0.4 |
| ✓ Maximum Tension (N/CM) \geq | - | 200 | 150 |
| ✓ Tensile Strength (Mpa) \geq | 12.0 | - | - |
| ✓ Tensile function Maximum Tension Rate (%) \geq | - | - | 15 |
| ✓ Break Elongation (%) \geq | 500 | 250 | - |
| ✓ Size Change Rate of Heat Treatment (%) \geq | 2.0 | 1.0 | 0.5 |
| ✓ Low Temperature Bending | -40°C, no crack | | |
| ✓ Impermeability | 0.3MPa, 2h, pass | | |
| ✓ Anti-Impact | 0.5kg·m, impervious | | |
| ✓ Anti-Static Load (a) | - | - | 20kg, impervious |
| ✓ Connecting Joint Peel Strength (N/MM) \geq | 4.0 or membrane destroyed | 3.0 | 3.0 |
| ✓ Right Angle Tension Strength (N/MM) \geq | 60 | - | - |
| ✓ Trapezoid Tension Strength (N/MM) \geq | - | 250 | 450 |

Legal Notes:

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Made In Malaysia

SCOPE OF REGISTRATION AND STANDARDS

Manufacture of Waterproofing materials. Compliance SIRIM testing. Compliance with ASTM technical standards and AS 3740 - 2004 Australia Standard.



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