Technical Data Sheet

AQUASTOP MEMBRANE M-3050 TPO (FS)

Thermoplastic Polyolefin Membrane

PRODUCT DESCRIPTION

AQUASTOP MEMBRANE M-3050 TPO (FS) is a fully bonded TPO waterproofing membrane made from high-quality imported TPO resin and reinforced with polyester fabric. It is specially designed for fully bonded waterproofing systems, providing durable and reliable waterproofing protection. It comes with 80mm wide strip without the non-woven fabric on the long side for welding seams.

- ▶ High flexibility and durablility
- ▶ IR reflection, cool-roof, energy saving
- ▶ Excellent weldability (hot air / heat welding)
- ▶ Excellent weathering and UV resistance
- ▶ Has good chemical and biological corrosion resistance.

DESIGN USE

Commercial, industrial roofing, green building and sustainable building flat roof, terraces, podium, residential roofing, solar panel roofing and etc.

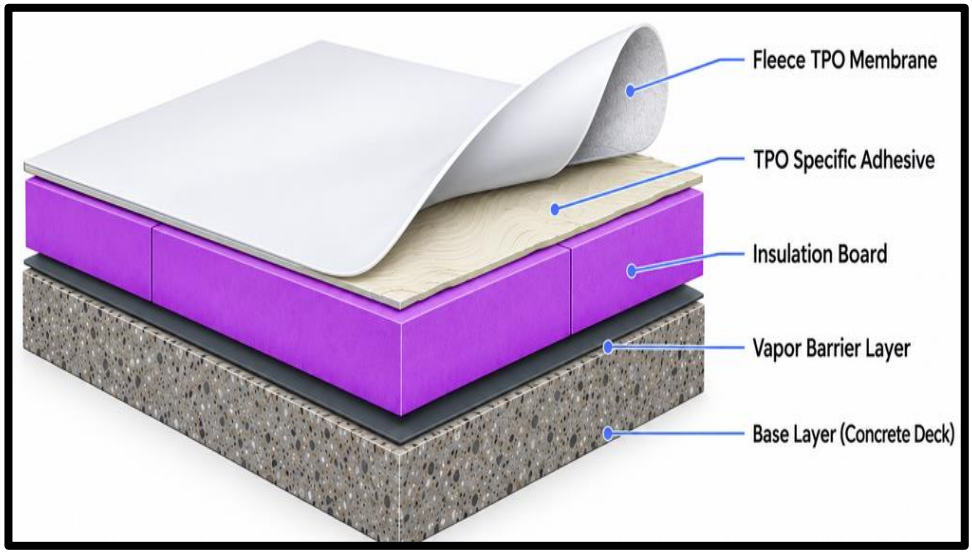
Note: More suitable for concrete substrate (fully adhered waterproofing system)

PHYSICAL DATA

Finish	Matt
Colour Range	White
Elongation at Break	> 400% (ASTM D412)
Tensile strength	> 22.0 MPa (ASTM D412)
Thickness	1.5mm
Width	2.0m
Length	25.0m
Application Method	Heat welding

RECOMMENDED COATING SYSTEM

Substrate: Concrete Substrate



APPLICATION METHOD

Base surface preparation --> TPO membrane laying --> Main waterproofing layer --> Compaction and exhaustion --> Detail treatment

1. Base surface preparation: Should be firm, smooth, clean and dry.

2. TPO membrane laying: TPO membrane shall be laid in a predetermined position and shall be smooth and straight without twisting and crossing.

3. Main waterproofing layer construction: The main waterproof layer is bonded to the base layer with a matching adhesive, and the adhesive is coated on the base layer and lower surface of the TPO membrane.

4. Compaction and exhaustion: As soon as the adhesive is dried and not sticky to fingers, lay the TPO membrane, compact and exhast the air out.

5. Detail treatment: The detail joints are hot-air welded with special designed TPO product

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SURFACE PREPARATION

New Concrete Substrates

- ▶ All new surfaces should be dry out thoroughly preferably for at least 28 days drying time.
- ▶ The moisture content of the concrete surface should be checked and ensured to be below than 16% when measured with reliable moisture meter.
- ▶ All surface contaminants such as laitance, dust and loose cement shall be removed by using scraper, sandpapers and clean slit brushes.
- ▶ Structural cracks should be repaired with appropriate crack repair compound.
- ▶ Any holes and undulations should be resurfacing with appropriate floor patch.
- ▶ Sweep, vacuum, or pressure-wash to remove dust, dirt, oil, grease, curing compounds, laitance, and loose particles. Concrete should be clean and dry before membrane installation. Moisture can cause blistering or poor adhesion. If moisture is suspected, perform a moisture test (ASTM D4263 – plastic sheet test).

Previously painted, coated, or previously waterproofed Surfaces

- ▶ Complete removal by grinding or shot-blasting is ideal. If coating removal is not practical, conduct adhesion testing with the new primer or adhesive system. If adhesion is poor, install a separation layer (e.g., protection board, concrete topping, or geotextile layer). For well-bonded bitumen, install a separator or recovery board (such as PIR board, cover board, or polyester geotextile) before TPO.
- ▶ If there's an old membrane (bitumen, asphalt, or PU), remove all delaminated or loose sections. Remove high spots, blisters, and degraded areas.
- ▶ Patch spalled or damaged concrete using non-shrink repair mortar. Fill cracks with epoxy injection or sealant, depending on width. Ensure the surface is smooth, dry, and uniform — no sharp ridges or protrusions.

Precautions

- ▶ All operators must be trained before work.
- ▶ The welding surface must be wiped clean, without water, oil and dirt.
- ▶ Inspect the welding quality, to ensure no missing or skiping welding.
- ▶ Attention should be paid to the protection during the construction process, and personnel with spikes are strictly prohibited from entering the construction site where TPO membrane have been laid.
- ▶ Hot-air welding should be conducted above -10℃.
- ▶ During constction, the site should be protected, to ensure the membrane stay in place.

DISCLAIMER	*The above information is given to the best of our knowledge based on laboratory testing and practical experiences. The information in this data sheet may be subject to changes from time to time and without notice due to production refinements arising from continuing research and evaluation programmes which may occasionally result in marginal changes in the coating properties.*
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