

Dr. Fixit Flexshield TPO



HIGH PERFORMANCE TPO MEMBRANE

Description

Dr. Fixit Flexshield TPO membranes are manufactured using a hot-melt extrusion process for complete scrim encapsulation. The TPO is reinforced with a strong, polyester reinforced fabric center (scrim) and a tough thermoplastic polyolefin compounded top ply and the bottom, the available thicknesses are 1.2mm & 1.5mm creating a very tough, durable and versatile sheet that is ideal for re-roofing and new construction projects. Dr. Fixit Flexshield TPO sheets are chlorine free and plasticizer free with excellent chemical resistance to acids, bases, restaurant oils, and greases.

Standard compliance / Specification

- Complies to ASTM D6878: Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing

Areas of Application

- Large commercial roofs

Packaging:

Thickness: 1.2mm & 1.5mm

Size: 2meter x 20meter

Features and Benefits

- Supplied in pre-manufactured standard thickness and size.
- Outstanding puncture resistance, high breaking and tearing strength.
- 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.
- 100% recyclable.

Installation: Horizontal Surface:

- Over the insulation, lay the specially formulated high strength 1.2mm or 1.5mm reinforced Dr. Fixit Flexshield TPO membrane.
- The membrane shall be loose laid on the horizontal surface, fully bonded on the vertical surface. The overlap of the membrane shall have minimum of 80mm side and end laps, which shall be hot air welded with automatic and manually operated heat welded machine as per site condition and should work wind upliftment according to UL and FM requirement.
- The overlap of the cut membrane ends should be sealed with the sealant.

Vertical Surface:

- The membrane should be fully bonded on the vertical surface by applying bonding contact adhesive on the Parapet wall as well as on the Dr. Fixit Flexshield TPO membrane to make fully adhere to the wall. Allow the adhesive to dry until it is tacky but will not string or stick to a dry finger. The membrane shall then be rolled on the coated substrate avoiding any wrinkles. The size of the laid sheet should be as large as possible to minimize the number of joints.
- Adjoining membrane sheets shall be similarly installed with overlapping edges of 80mm side and end laps which shall be hot air welded with automatic heat welded machine & the end should be sealed with sealant.
- The vertical edge should be filled with sealant cum bonding adhesive and terminated with aluminium termination bar and fasteners 200 above the slope screed level and sealed with sealant.



Technical Information

PHYSICAL PROPERTY	ASTM D6878 REQUIREMENT	1.2mm-RF	1.5mm-RF
Tolerance on nominal thickness, % ASTM D751 test method	+15, -10	± 10	± 10
Thickness over scrim, in. (mm) ASTM D6878 optical method, average of 3 areas	0.012 min (0.305)	0.018 typ (0.457)	0.024 typ (0.610)
Breaking strength, lbf (kN) ASTM D751 grab method	220 (976 N) min	225 (1.0) min 290 (1.4) typ	250 (1.1) min 290 (1.6) typ
Elongation break of reinforcement, % ASTM D751 grab method	15 min	15 min 25 typ	15 min 25 typ
Tearing strength, lbf (N) ASTM D751 proc. B 8 in. x 8 in.	55 (245) min	55 (245) min 130 (578) typ	55 (245) min 130 (578) typ
Brittleness point, oF (°C) ASTM D2137	-40 (-40) max	-40 (-40) max	-40 (-40) max
Linear dimensional change, % ASTM D1204, 6 hours at 158°F	±1	±1	±1
Water absorption resistance, mass % ASTM D471 top surface only 166 hours at 158°F water	3.0 max	3.0 max 2.0 typ	3.0 max 2.0 typ
Factory seam strength, lbf/in (kN/m) ASTM D751 grab method	66 (290) min	66 (290) min	66 (290) min
Water vapor permeance, Perms ASTM E96 proc. B	No requirement	0.10 max 0.05 typ	0.10 max 0.05 typ
Puncture resistance, lbf (kN) FTM 101C, method 2031 (see supplemental section)	No requirement	250 (1.1) min 325 (1.4) typ	300 (1.3) min 350 (1.6) typ
Properties after heat aging ASTM D573, 670 hours @ 240°F	No requirement	Pass	Pass
Typical Weights	No requirement	1.2 Kg/m ²	1.6 Kg/m ²

* Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

Precautions & Limitations

- Use proper stacking procedures to ensure sufficient stability.
- Exercise caution when walking on wet membrane.
- UV-resistant sunglasses are required when working with Dr. Flexshield TPO membranes.
- White surfaces reflect heat and may become slippery due to water accumulation.
- Dr. Flexshield TPO membrane rolls must be covered and elevated to keep dry prior to installation.



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