

Product Information Sheet



TPO Membrane (Firestone)

PIN # 1118

Item Description

45mil or 60 mil TPO Membrane
 Standard, FR and Clean film
 12'4" wide x custom length
 *other sizes available by request

product Number
 MT-451206

Product Information

Firestone UltraPly TPO is a flexible Thermoplastic Polyolefin roofing membrane that is produced with polyester weft- inserted reinforcement. UltraPly TPO membrane meets or exceeds all requirements for ASTM D 6878 Specification. This heat weldable TPO membrane is available in 45 mil (1.14 mm) and 60 mil (1.52 mm) thicknesses. This reflective membrane is suitable for a variety of low-slope applications.

Method of Application:

The Firestone UltraPly TPO membrane is used in mechanically attached and fully adhered roofing systems in new construction, reroofing and recover (retrofit) and Modular applications. It may also be used as flexible membrane flashings for walls, curbs, etc, when installing UltraPly TPO membrane roofing systems. The system must be installed over acceptable roof insulation or other suitable substrate.

Typical Properties:

Typical Properties (Meets or exceeds ASTM D 6878 Specification)

<u>Property</u>	<u>ASTM Standard</u>	<u>Performance Minimum</u>	<u>Typical Performance 45 mil</u>	<u>Typical Performance 60 mil</u>
Overall Thickness:	D 751	0.039" (1 mm)	0.045" (1.14 mm) ± 10%	0.060" (1.52 mm) ± 10%
Coating over	D 7635	0.015" (0.38 mm)	0.017" (0.43 mm)	0.021" (0.53 mm)
Breaking Strength:	D 751, Grab Method	245 lbf (979 N)	340 lbf (1,512 N)	390 lbf (1,735 N)
Elongation of Reinforcement	D 751, Grab Method	15%	25%	25%
Tearing Strength:	D 751	55 lbf (245 N)	120 lbf (534 N)	120 lbf (534 N)
Brittleness Point:	D 2137	-40 °F (-40 °C)	Pass	Pass
Ozone Resistance,	D 1149	Pass (No Cracks)	Pass	Pass
Properties After Heat Aging (Retained Values) (ASTM D 573-5376 h (224 days or 32 weeks) at				
Breaking Strength:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Elongation at Break:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Tearing	D 751	60% Minimum	> 60%	> 60%
Weight of		± 1% Maximum	< 1%	< 1%
Linear Dimension Change:	D 1204, 6 h at 158 °F (70 °C)	± 1% Maximum	< 1%	< 1%

For further information contact
RPW Associates, Inc
 905-875-1108 / 866-202-6900

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Water Absorption:	D 471	± 3% Maximum	< 3%	< 3%
Weather Resistance, 80 °C Black Panel, no cracking, crazing	G 155	10,080 kJ/m ² Minimum	> 60,000 kJ/m ²	> 60,000 kJ/m ²
Puncture Resistance:	FTM 101C, Method 2031	---	265 (1,180)	300 (1,300)
Dynamic Puncture	D 5635	---	Pass (20 J)	Pass (40 J)
Dynamic Puncture	D 5635	---	Pass (35 J)	Pass (50 J)
Static Puncture	D 5602	---	Pass (25 kg)	Pass (25 kg)
Air Permeance (Material):	E 2178*	< 0.004 ft ³ /ft ² (0.02 L/(s*m ²))	Pass	Pass

**The ASTM 2178 values listed are for the air permeance of the UltraPly TPO Membrane component only. For use of the product as a component in an air barrier assembly, please consult your Firestone Building Systems Advisor (BSA), Code Agency or Authority having Jurisdiction (AHJ) for the acceptable air barrier assembly*

Typical Properties (Meets or exceeds ASTM D 6878 Specification)

Property	ASTM Standard	Performance Minimum	Typical Performance 45 mil	Typical Performance 60 mil
Overall Thickness:	D 751	0.039" (1 mm)	0.045" (1.14 mm) ± 10%	0.060" (1.52 mm) ± 10%
Coating over	D 7635	0.015" (0.38 mm)	0.017" (0.43 mm)	0.021" (0.53 mm)
Breaking Strength:	D 751, Grab Method	245 lbf (979 N)	340 lbf (1,512 N)	390 lbf (1,735 N)
Elongation of Reinforcement	D 751, Grab Method	15%	25%	25%
Tearing Strength:	D 751	55 lbf (245 N)	120 lbf (534 N)	120 lbf (534 N)
Brittleness Point:	D 2137	-40 °F (-40 °C)	Pass	Pass
Ozone Resistance,	D 1149	Pass (No Cracks)	Pass	Pass
Properties After Heat Aging (Retained Values) (ASTM D 573-5376 h (224 days or 32 weeks) at				
Breaking Strength:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Elongation at Break:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Tearing	D 751	60% Minimum	> 60%	> 60%
Weight of		± 1% Maximum	< 1%	< 1%
Linear Dimension Change:	D 1204, 6 h at 158 °F (70 °C)	± 1% Maximum	< 1%	< 1%
Water Absorption:	D 471	± 3% Maximum	< 3%	< 3%
Weather Resistance, 80 °C Black Panel, no cracking, crazing	G 155	10,080 kJ/m ² Minimum	> 60,000 kJ/m ²	> 60,000 kJ/m ²
Puncture Resistance:	FTM 101C, Method 2031	---	265 (1,180)	300 (1,300)
Dynamic Puncture	D 5635	---	Pass (20 J)	Pass (40 J)
Dynamic Puncture	D 5635	---	Pass (35 J)	Pass (50 J)
Static Puncture	D 5602	---	Pass (25 kg)	Pass (25 kg)
Air Permeance (Material):	E 2178*	< 0.004 ft ³ /ft ² (0.02 L/(s*m ²))	Pass	Pass

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**The ASTM 2178 values listed are for the air permeance of the UltraPly TPO Membrane component only. For use of the product as a component in an air barrier assembly, please consult your Firestone Building Systems Advisor (BSA), Code Agency or Authority having Jurisdiction (AHJ) for the acceptable air barrier assembly*

Storage:

- Store away from sources of punctures and physical damage.
- Assure that structural decking will support the loads incurred by material when stored on rooftop. The deck load limitations should be specified by the project designer.
- Store away from ignition sources as membrane will burn when exposed to open flame.

Precautions:

- Refer to Safety Data Sheets (SDS) for safety information.
- Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.

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