

UltraPly™ TPO XR Membrane

<u>Item Description</u>	<u>Item Number</u>
UltraPly TPO XR 100 (45 mil)	
White Membrane	W56TXR3099
Tan Membrane	W56TXRT099
Gray Membrane	W56TXRG099
UltraPly TPO XR 115 (60 mil)	
White Membrane	W56TXR3699
Tan Membrane	W56TXRT699
Gray Membrane	W56TXRG699

Meets or exceeds all requirements for ASTM D 6878.

Product Information

Description:

Firestone UltraPly™ TPO XR Membrane is a flexible Thermoplastic Polyolefin (TPO) roofing membrane that is produced with polyester weft-inserted reinforcement and an 8 ounce polyester fleece backing. UltraPly TPO XR Membrane meets or exceeds all requirements for ASTM D 6878 Specification. This heat weldable UltraPly TPO membrane is available in 45 mil (1.14 mm) and 60 mil (1.52 mm) thicknesses. This membrane is ideal for a variety of new or re-roofing applications.

Method of Application:

1. Substrates must be clean, dry, smooth, and free of sharp edges, fins, loose or foreign materials, oil, grease, and other materials that may damage the membrane.
2. All roughened surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.
3. All surface voids greater than 1/4" (6.3 mm) wide shall be properly filled with an acceptable fill material.
4. UltraPly TPO XR membrane may be fully adhered or adhered with adhesive beads using Firestone XR Bonding Adhesive, XR Stick™ Adhesive, I.S.O.Spray™ S Insulation Adhesive, or hot asphalt. UltraPly TPO XR Membrane can also be mechanically attached.

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:

1. Review Material Safety Data Sheets (MSDS) for safety information.
2. Exercise caution when lifting, moving, transporting, storing or handling membrane rolls to avoid sources of punctures and possible physical damage.
3. Contact your Technical Coordinator at 1-800-428-4511 for specific recommendations regarding chemical or waste product compatibility with Firestone UltraPly TPO XR Membrane.

LEED® Information:

Post Consumer Recycled Content: 0%
Pre Consumer Recycled Content: 15%
Manufacturing Location: Tuscumbia, AL



ICC-ES
ESR-2831

TECHNICAL INFORMATION SHEET



UltraPly™ TPO XR Membrane

Product Sizes

Membrane Thickness – TPO XR 100: 0.045" (1.14 mm) Membrane Weight: 0.27 lb/ft² (1.3 kg/m²)		Membrane Thickness – TPO XR 115: 0.060" (1.52 mm) Membrane Weight: 0.32 lb/ft² (1.6 kg/m²)	
Available Sizes		Available Colors	
10' x 100' (3.0 x 30.5 m)	White, Tan, Gray	10' x 100' (3.0 x 30.5 m)	White, Tan, Gray

Physical Properties

(Meets or exceeds all requirements for ASTM D 6878.)

Property	ASTM Standard	Performance Minimum	Typical Performance XR 100: 45 mil	Typical Performance XR 115: 60 mil
Overall Thickness:	D 751	0.039" (1.0 mm)	0.045" (1.14 mm) ± 10%	0.060" (1.52 mm) ± 10%
Coating Over Scrim:	D 7635	0.015" (0.38 mm)	0.017" (0.43 mm)	0.021" (0.53 mm)
Breaking Strength:	D 751, Grab Method	220 lbf (979 N)	340 lbf (1,512 N)	390 lbf (1,735 N)
Elongation of Reinforcement Break:	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, No Cracks:	D 1149	Pass (No Cracks)	Pass	Pass
Properties After Heat Aging (Retained Values) (ASTM D 573 670 h at 240 °F (116 °C)):				
Breaking Strength:	D 751, Grab Method	90% Minimum	> 90%	> 90%
Elongation at Break:	D 751, Grab Method	90% minimum	> 90%	> 90%
Tearing Strength:	D 751	60% minimum	> 60%	> 60%
Weight of Change:		± 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 when wrapped around a 3" mandrel and inspected at 7X magnification:	G 155	10,800 kJ/m ² Minimum	> 20,160 kJ/m ²	> 20,160 kJ/m ²
Puncture Resistance:	FTM 101C, Method 2031	_____	_____	_____
Dynamic Puncture Resistance MD:	D 5635	_____	Pass (60 J)	Pass (65 J)
Dynamic Puncture Resistance CD:	D 5635	_____	Pass (55 J)	Pass (65 J)
Static Puncture Resistance:	D 5602	_____	Pass (25 kg)	Pass (25 kg)

TECHNICAL INFORMATION SHEET

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Radiative Properties

<u>Cool Roof Rating Council (CRRC): Initial / 3 yr</u>	<u>White</u>	
Solar Reflectance	0.79 / 0.69	
Thermal Emittance	0.78 / 0.81	
Solar Reflectance Index (SRI)	96 / 82	
Rated Product ID	0016	
Licensed Manufacturer ID	0608	
Classification	Production Line	
<u>ENERGY STAR®: Initial / 3 yr</u>	<u>White</u>	<u>Tan</u>
Solar Reflectance	0.79 / 0.78	0.60 / 0.54
Thermal Emittance	0.85	0.81
* White membrane sample cleaned prior to age test.		
<u>LEED®</u>	<u>White</u>	<u>Tan</u>
Solar Reflectance – ASTM E 903	0.81	0.63
Thermal Emittance – ASTM E 408	0.95	0.95
Solar Reflectance Index (SRI) – ASTM E 1980	102	77



ENERGY STAR is only valid in the United States



Please contact your Firestone Roof Systems Advisor at 1-800-428-4511 for further information.

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