Firestone BUILDING PRODUCTS

UltraPly™ TPO

DESCRIPTION:

Firestone UltraPly™ TPO is a flexible Thermoplastic Polyolefin roofing membrane that is produced with polyester weft-inserted reinforcement. This heat weldable TPO membrane is available in 45 mil (1.1 mm) and 60 mil (1.5 mm) thicknesses in 8' (2.4 m), 10' (3 m) and 12'4" (3.76 m) widths. The colors available are white, tan or gray. This reflective membrane is suitable for a variety of low slope applications.

METHOD OF APPLICATION:

1. Firestone UltraPly TPO membrane is installed as continuous roofing or waterproofing layer on the roof. Rolls are overlapped (side laps and end laps) prior to the heat welding of the seam areas.
2. Install the UltraPly TPO Roofing System in accordance with current Firestone UltraPly TPO specifications, details and workmanship requirements.
3. Please contact your Firestone Technical Coordinator at 1-800-428-4511 or visit the Firestone Technical Database for additional information at www.firestonebpco.com

PRODUCT DATA:

Thickness:	0.045" (1.1 mm)
	0.060" (1.5 mm)
Width:	5 ft to 12 ft 4 in (1.5 m to 3.75 m)
Length:	100 ft (30.5 m)
Colors:	White, Tan, Gray

CRRC COOL ROOF RATING COUNCIL CHARTER MEMBER

ENERGY STAR

**ENERGY STAR is only valid in the United States*

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:

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

LEED INFORMATION:

Post Consumer Recycled Content:	0%
Pre Consumer Recycled Content:	15%
Manufacturing Location(s):	Wellford, SC
	Tuscumbia, AL

Firestone GREEN ONE TEAM, ONE PLANET

FM APPROVED

CLASSIFIED C UL US

CCMC 13348-R

MIAMI-DADE COUNTY APPROVED

Firestone Building Products Company, LLC
250 W. 96th Street, Indianapolis, IN 46260
Sales: (800) 428-4442 • Technical (800) 428-4511
www.firestonebpco.com

TECHNICAL INFORMATION SHEET

201
11/07/2011

UltraPly™ TPO

Firestone BUILDING PRODUCTS

PHYSICAL PROPERTIES

Property	Test Method	ASTM D 6878 Specification	Typical Values	
			45 mil	60 mil
Overall Thickness	ASTM D751	0.039" (1.0 mm) min	0.045" (1.14 mm) ± 10%	0.060" (1.5 mm) ± 10%
Coating Over Scrim	ASTM D 7635	0.015" (0.381 mm) min	0.017" (0.44 mm)	0.021" (0.54 mm)
Breaking Strength	ASTM D751, Grab Method	220 lb_f (975 N) min	340 lb_f (1,510 N)	390 lb_f (1,730 N)
Elongation at Reinforcement Break	ASTM D751, Grab Method	15% min	25%	25%
Tearing Strength	ASTM D751	55 lb_f (245 N) min	120 lb_f (530 N)	120 lb_f (530 N)
Brittleness Point	ASTM D2137	-40 ºF (-40 ºC)	Pass	Pass
Ozone resistance, no cracks	ASTM D1149	Pass (no cracks)	Pass	Pass
Properties after Heat Aging	ASTM D573	670 h at 240 °F (116 °C)		
Retention of Breaking Strength	ASTM D751, Grab Method	90% min	> 90%	> 90%
Retention of Elongation at Break	ASTM D751, Grab Method	90% min	> 90%	> 90%
Retention of Tearing Strength	ASTM D751	60% min	> 60%	> 60%
Weight Change		± 1% max	< 1%	< 1%
Linear Dimension Change	ASTM D1204 6 h at 158 °F (70 °C)	± 1% max	< 1%	< 1%
Water Absorption	ASTM D471	± 3.0% max	< 3%	< 3%
Weather Resistance	ASTM G155, 80 °C Black Panel, no cracking, crazing when wrapped around a 3" mandrel and inspected at 7x magnification	10,080 kJ/m^2 min	> 20,160 kJ/m^2	> 20,160 kJ/m^2
Puncture Resistance	FTM 101C Method 2031	---	265 lb_f (1,180 N)	300 lb_f (1,300 N)
Dynamic Puncture Resistance MD	ASTM D5635	---	Pass (20 J)	Pass (40 J)
Dynamic Puncture Resistance CD	ASTM D5635	---	Pass (35 J)	Pass (50 J)
Static Puncture Resistance	ASTM D5602	---	Pass (25 kg)	Pass (25 kg)

ENERGY STAR®	White	Tan	Cool Roof Rating Council (CRRC)	White	Tan
Initial Solar Reflectance	0.79	0.60	Solar Reflectance (Initial)	0.79	0.60
Aged Solar Reflectance (3 years)	0.78	0.54	Solar Reflectance (Weathered)	0.68	0.55
Cleaned prior to aged test?	Yes	No	Thermal Emittance (Initial)	0.85	0.81
Initial Emittance	0.85	0.81	Thermal Emittance (Weathered)	0.83	0.84

LEED	Test Method	White	Tan	Gray
Solar Reflectance	ASTM E903	0.81	0.63	0.37
Thermal Emittance	ASTM E408	0.95	0.95	0.95
Solar Reflectance Index (SRI)	ASTM E1980	102	77	43