TremPly[®] TPO Single Ply Roofing Systems

Environmentally friendly, long-lasting single ply roofing system

FEATURES

BENEFITS

Great Value		• Excellent performance at a cost-effective price.
Excellent Seam Strength		• Heat-welded seams provide greater seam strength to taped and other seams.
	Long-term Weathering	• Excellent long-term heat and UV resistance.
	Energy Saving	• Highly reflective and emissive white surface can help reduce energy use and urban heat island effect.
	Inherently Flexible	• No need for plasticizers.
	Fungal Resistant	• Doesn't require biocides.
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TremPly[®] TPO Single Ply Roofing System is a smooth back thermoplastic roofing membrane. It is offered in 5-foot and 10-foot-wide sheets that feature heat welded seam integrity and overall exceptional value. The TremPly TPO material has been formulated for long term weatherability and exceeds the ASTM heat aging requirement by almost 2 times.

TremPly TPO is offered white, gray and tan colors with 45 mil, 60 mil and 80 mil thickness. TremPly TPO is also available in a fleece back version which is detailed on a separate data sheet. They are excellent choices for roof overlays, replacement and new construction alike. Tremco also offers TremPly Max TPO as a higher performing

BASIC USES

DESCRIPTIO

COLOR GRADE

White, Tan, Gray

alternative to the TremPly TPO.

TremPly TPO is offered in 45mil, 60mil, 80mil thicknesses. TremPly Max TPO and Fleeceback versions are available and detailed on separate data sheets.

Store rolls on their sides on pallets or shelving in a dry area. Jobsite specific be sure to cover or tarp when not in use.

COVERAGE RATE

STORAGE LIFE

Available in $10^\prime x 100^\prime$ (1,000 sq. ft.) and $5^\prime x 100^\prime$ sheets (500 sq. ft.)

TremPly TPO is available as a mechanically attached, fully adhered, ballasted, or a heat induction welded systems. Field seaming is accomplished by fusing the thermoplastic membrane with conventional hot air welding equipment. It comes with a full line of readily available, pre-fabricated accessories designed to save time and money. TremPly TPO Roofing Systems carry extensive FM Global and Underwriters Laboratories' approvals.

Please refer to Tremco application guides and project specific specifications or consult with your local Tremco Roofing sales representative for project specific application requirements.

LIMITATIONS

Follow recommendations for applicable adhesives or installation methods in low temperature situations.

TremPly® TPO Single Ply Roofing System's

PHYSICAL PROPERTIES

PROPERTY	ASTM D6878 MINIMUM	TPO 45 MIL	TPO 60 MIL	TPO 80 MIL
Normal Thickness ASTM D751	0.039" (min.) (0.99 mm)	0.045" (1.14mm)	0.060" (1.52 mm)	0.080" (2.03 mm)
Breaking Strength ASTM D751	220 lbf/in. (38.5 kn/m)	280 lbf x 270 lbf (417.2 x 402.3 kg/m)	305 lbf x 290 lbf (454 x 432 kg/m)	335 lbf x 320 lbf (499 x 477 kg/m)
Grab Method				
Factory Seam Strength ASTM D751	66 lbf (98.34 kg/m)	110 lbf (membrane failure)(163.9 kg/m)	135 lbf (membrane failure) (201.1 kg/m)	160 lbf (membrane failure) (238.4 kg/m)
Elongation at break ASTM D751	15%	30%	30%	30%
Heat Aging ASTM D751	90% retention of Breaking	100%	100%	100%
	Strength & Elongation at break			
Tear Strength ASTM D751 8" x 8"	55 lbf (81.95 kg/m)	100 lbf x 120 lbf (149 x 178.8 kg/m)	75 lbf x 130 lbf (111.8 x 193.7 kg/m)	65 lbf x 160 lbf (96.85 x 238.4 kg/m)
(203 x 203 mm) Sample				
Puncture Resistance FTM 101C	Not Established	290 lb. (131 kg)	380 lb. (172 kg)	>380 lb. (172 kg)
Method 2031				
Cold Brittleness ASTM D2137	(-40°C)	-40° C	-40° C	-40° C
Permeance ASTM E96	Not Established	0.08 Perms	0.08 Perms	0.08 Perms
Dimensional Change ASTM D1204	(+/-1%)	0.40%	0.40%	0.40%
@ 158°F (70°C), 6 hrs.				
Water Absorption ASTM D471	(+/-3.0%)	0.70%	0.70%	0.70%
@ 158°F (70°C), 1 week				
Hydrostatic Resistance ASTM D751	Not Established	380 psi	430 psi	430 psi
Method D				
Ozone Resistance ASTM 1149	No visible deterioration @	No visible deterioration @	No visible deterioration @	No visible deterioration @
	7x magnification	7x magnification	7x magnification	7x magnification
SRI (Solar Reflectance Index) Initial/Aged	N/A	94/81, 83 Aged Title 24	94/81, 83 Aged Title 24	94/81, 83 Aged Title 24
Reflectivity (white) initial/aged	N/A	0.76/0.68, 81.9% Reflectance	0.76/0.68, 81.9% Reflectance	0.76/0.68, 81.9% Reflectance
ASTM C1549, ASTM E903				
Emissivity (white) Initial/aged	N/A	0.90/0.83, 0.94	0.90/0.83, 0.94	0.90/0.83, 0.94
ASTM C1371, ASTM E403				
Weather Resistance ASTM G155/D6878	10,080 KJ/(m² x nm) at 340 nm	>20,000 KJ/(m² . nm) at 340 nm	>25,000 KJ/(m² . nm) at 340 nm	>25,000 KJ/(m ² . nm) at 340 nm
Heat Aging ASTM D573	240°F (115°C) for 32 weeks	60 weeks	60 weeks	60 weeks
Thickness Above Scrim ASTM D7635	Min 30% of Total Thickness	15.8 mil (Nominal)	22.1 mil (Nominal)	31.4 mil (Nominal)

Note: This data based on typical product performance for 45-mil membrane, and are subject to normal manufacturing tolerances and variances. Certain data are provided in MD (machine direction) x CMD (cross machine direction) format. Visit www.tremcoroofing.com for latest data. Important Note: Tremco TPO membranes meet and/or exceed ASTM D-6870 standards for thermoplastic TPO membranes .

MAINTENANCE

PRECAUTIONS



Roofing & Building Maintenance

www.tremcoroofing.com 3735 Green Road Beachwood, Ohio 44122 1.800.852.6013

220 Wicksteed Avenue Toronto, Ontario, M4H 1G7 1.800.668.9879

Tremco Roofing and Building Maintenance is part of Tremco Construction Products Group.

Your local Tremco Roofing sales representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventative maintenance are all part of a sound roof program.

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

Your local Tremco Roofing sales representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.

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