EverGuard® TPO 45 mil Membrane Data Sheet

Updated: 6/18







BMI EverGuard® TPO membrane offer great performance in a value-priced TPO roofing system

Benefit

- Great Value: Superior performance at a costeffective 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 roof can help reduce energy costs and urban heat island effect.
- NSF/ANSI 347: Providing architects and contractors with a certified sustainable option for single-ply roofing membranes.
- UL Landfill Waste Diversion Validation: Zero Waste to Landfill (Mt. Vernon TPO Plant).
- HPDs: Only single-ply roofing manufacturer that publishes Health Product Declarations (HPDs) for transparent reporting and LEED®v4 compliance.
- **EPDs:** Publishes Environmental Product Declarations (EPDs) for single-ply roofing membranes.

Installation Options

EverGuard®TPO 45-mil Membrane has a versatile application method and is suitable for all types of single-ply systems:

- Mechanically Attached Application: A quick and cost-effective system that can be installed practically year-round.
- RhinoBond® Application: Can be applied without using adhesives.
- Qualifies for the same guarantee length as an adhered system.¹
- Adhered Application: Can be installed with EverGuard® 1121 Bonding Adhesive (solvent-based), EverGuard® Low VOC TPO Bonding Adhesive, or EverGuard® WB181 Bonding Adhesive (water-based) for the smoothest appearance.
- Provides superior wind uplift performance.

TPO Accessories

Field fabrication of TPO accessories is time-consuming, costly, and inconsistent – and it can lead to unreliable details that compromise a watertight roofing system. EverGuard® TPO prefabricated accessories deliver consistent quality and eliminate the worry and problems often associated with field fabrication. They can also boost productivity up to 200%² while reducing installed cost by up to 12%.



¹See applicable guarantee for complete coverage and restrictions. ²Based on GAF estimate to field-fabricate flashing details. ³RhinoBond[®] is a trademark of OMG.

EverGuard® TPO 45 mil Membrane

Applicable Standards

 $\begin{array}{l} \mbox{UL Listed, FM Approved, Miami-Dade County Product Control Approved, State of Florida Approved, CRRC Rated, Title 24 \\ \mbox{Compliant}^*, \mbox{ENERGY STAR}^{\mbox{\$}} \mbox{Certified}^{**}, \mbox{ASTM D6878}. \end{array}$

Physical Properties	ASTM Test Method	ASTM D6878 Minimum	EverGuard® Typical Test Data	
	O (machine direction) x CMD (cross machine direction) duct performance, and is subject to normal manufa		•	
Nominal Thickness	ASTM D751	0.039" (min.) (0.99 mm)	0.045" (1.14 mm)	
Breaking Strength	ASTM D751 Grab Method	220 lbf/in. (38.5 kn/m)	280 lbf x 270 lbf (417.2 x 402.3 kg/m)	
Factory Seam Strength	ASTM D751	66 lbf (98.34 kg/m)	110 lbf (membrane failure) (163.9 kg/m)	
Elongation at Break	ASTM D751	15%	30%	
Heat Aging	ASTM D573	90% Retention of Breaking Strength and Elongation at Break	th 100%	
Tear Strength	ASTM D751 8" x 8" (203 x 203 mm) Sample	55 lbf (81.95 kg/m)	100 lbf x 120 lbf (149 x 178.8 kg/m)	
Puncture Resistance	FTM 101C Method 2031	Not Established	290 lb. (131 kg)	
Cold Brittleness	ASTM D2137	-40°C	-40°C	
Permeance	ASTM E96	Not Established	0.08 Perms	
Dimensional Change	ASTM D1204 @158°F (70°C), 6 hrs.	+/-1%	0.4%	
Water Absorption	ASTM D471 @158°F (70°C), 1 week	+/-3.0% max.	0.7%	
Hydrostatic Resistance	ASTM D751 Method D	Not Established	380 psi	
Ozone Resistance	ASTM D1149	No visible deterioration @ 7 x magnification	No visible deterioration @ 7 x magnification	
SRI (Solar Reflectance Index) Initial/Aged	N/A	N/A	94/81 83 Aged Title 24	
Reflectivity (white) Initial/Aged	ASTM C1549 ASTM E903	N/A N/A	0.76/0.68 81.9% Reflectance	
Emissivity (white) Initial/Aged	ASTM C1371 ASTM E403	N/A N/A	0.90/0.83 0.94	
Weather Resistance	ASTM G155/D6878	10,080 KJ/(m² · nm) at 340 nm	>20,000 KJ/(m²·nm) at 340 nm	
Heat Aging	ASTM D573	240°F (115°C) for 32 weeks	60 weeks	
Thickness Above Scrim	ASTM D7635	Min 30% of Total Thickness	15.8 mil (Nominal)	
Guarantee				
Up to 20 years		· · · · · · · · · · · · · · · · · · ·	<u> </u>	

^{*}White Membrane Only

Product Data

	5'x 100'	6′ x100′	8'x100'	10'x100'	12′x100′			
Roll Size	(1.52 × 30.5 m) (500 sq. ft. [46.5 sq.m])	(1.83 × 30.5 m) (600 sq. ft. [55.74 sq.m])	(2.44 × 30.5 m) (800 sq. ft. [74.3 sq.m])	(3.05 × 30.5 m) (1,000 sq. ft. [92.9 sq.m])	(3.65 × 30.5 m) (1,200 sq. ft. [111.484 sq.m])			
Roll Weight	128 lb. (58.1 kg)	153.6 lb. (69.7 kg)	204 lb. (93 kg)	256 lb. (116.1 kg)	307.2 lb. (139.3 kg)			
Colors	White, Tan, Gray							
Storage	Store rolls on their sides on pallets or shelving in a dry area.							
Safety Warning	Membrane rolls are heavy. Position and install by at least two people.							
Note: Membrane rolls shipped horizontally on pallets, stacked pyramid-style and banded. Product sizes, dimensions, and widths are nominal values and are subject to normal manufacturing/packaging tolerance and variation.								



^{**}ENERGY STAR® only valid in the U.S.