



Durable. Efficient. Proven.

GAF knows thermoplastic polyolefin (TPO). Our EverGuard® TPO membrane construction has remained unchanged for decades. It's just one of the reasons we've sold more than 6 billion square feet. EverGuard® TPO offers flexibility, durability, UV reflectivity, and heat-sealable properties. It's inherently fungal resistant* and flexible without using plasticizers.

Competitive pricing and a 20-plus-year track record for performance make TPO the most popular option in the commercial roofing industry and specialized training from GAF Roofing It Right videos and CARE classes add to GAF's unmatched technical support.

Installation:

EverGuard® TPO is suitable for all types of single-ply systems:

- **Mechanically Attached** — for a quick and cost-effective system that can be installed practically year-round.
- **Induction Welded** — can be applied without using adhesives and installed practically year round. Qualifies for the same guarantee length as an adhered system.†
- **Adhered** — can be installed with EverGuard® TPO Quick Spray, EverGuard® TPO Quick Spray LV50, EverGuard® TPO Low VOC Bonding Adhesive, EverGuard® TPO 3 Square Low VOC Bonding Adhesive, EverGuard® TPO SBA 1121 Bonding Adhesive, or EverGuard® WB 181 Bonding Adhesive for the smoothest appearance.

Features:

EverGuard® TPO offers the following:

- Endures 2 to 2.5 times the industry standard, depending on thickness (ASTM D6878 weather resistance test).
- Offers guarantees for eligible systems up to 20 years for 45 mil, 25 years for 60 mil, and 30 years for 80 mil.†
- Available in 12' rolls to cover more area with fewer rolls and seams
- Allows for heat-welded seams that provide greater seam strength to taped and other seams
- Creates a highly reflective and emissive white roof that can help reduce cooling costs‡ and urban heat island effect. (white, energy tan and energy gray only)

TPO Field Study:

As a relatively new roof technology, TPO performance was proven mostly in lab studies. So when real-world TPO systems started approaching 20-year marks, GAF acquired and analyzed EverGuard® TPO samples across the United States. We found 8- to 16-year-old TPO roofs to be performing well and in most instances, meeting the current ASTM D 6878-19 requirements for new membranes. [Download](#) the study from GAF.com.



* Meets ASTM G21. GAF warranties and guarantees do not provide coverage against fungi or other biological growth. Refer to [gaf.com](#) for more information on warranty and guarantee coverage and restrictions.

† Additional requirements apply. Contact GAF for more information. Refer to sample guarantees, available at [gaf.com](#), for complete coverage and restrictions.

‡ Energy cost savings are not guaranteed and the amount of savings may vary based on climate zone, utility rates, radiative properties of roofing products, insulation levels, HVAC equipment, efficiency and other factors.

Accessories:

EverGuard® TPO prefabricated accessories deliver consistent quality and eliminate the worry and problems often associated with field fabrication. They can also boost productivity while reducing labor.

- **Coated Speedtite™ and Hercules® Drain** — TPO-coated flange for direct hot-air welding of TPO roof membranes.
- **Corner Curb Wrap** — Four standard sizes to flash 24", 36", 48", and 60" curbs.
- **Fluted Corner** — For use in flashing outside corners of base and curb flashing.
- **Inside Corner** — Manufactured to accommodate inside corners of base or curb flashing.
- **Preformed Split Pipe Boot** — Three standard sizes accommodate most pipes and conduits.
- **Preformed Vent Boot** — Accommodates most common pipes and conduits from 1" (25.4 mm) to 6" (152 mm).
- **Scupper** — Heat-welds to the scupper for a strong, secure installation.
- **Split Pourable Sealant Pocket** — Cuts to size and offers a low profile to help seal varying penetrations with less sealant.
- **Square Tube Wrap** — Tube wraps are split with overlaps to wrap around square or rectangular tubing.
- **T-Joint Cover Patches** — Conforming seal for use over T-joints in 60- and 80-mil membrane applications.
- **TPO Cover Tape** — Self-adhered TPO ideal for stripping-in TPO and edge metal.
- **Universal Corner** — Accommodates both inside and outside corners of base and curb flashings.
- **Vent** — For use in venting low-slope mechanically attached roofs.
- **Walkway Roll** — Heat-welds directly to TPO membrane or installs with seam tape. Available in gray and yellow.




Physical Properties (ASTM D 6878)					
Type	ASTM Test Method	ASTM D 6878 Minimum	EverGuard® TPO Test Values (approx.)*		
			45 mil	60 mil	80 mil
TPO Nominal Thickness	ASTM D 751	0.039"	0.045" (1.14 mm)	0.060" (1.52 mm)	0.080" (2.03 mm)
Thickness Over Scrim	ASTM D 7635	0.015"	15.8 mil (nominal)	24.1 mil (nominal)	31.4 mil (nominal)
Breaking Strength	ASTM D 751 Grab Method MD	220 lbf	375 lbf x 330 lbf (559 x 492 kg/m)	400 lbf x 360 lbf (596 x 536 kg/m)	440 lbf x 390 lbf (656 x 581 kg/m)
Elongation at Break	ASTM D 751	15%	30%	30%	30%
Tear Strength	ASTM D 751 (8" x 8" sample)	55 lbf	90 lbf x 120 lbf (134 x 179 kg/m)	70 lbf x 130 lbf (104 x 194 kg/m)	100 lbf x 180 lbf (149 x 268 kg/m)
Brittleness Point	ASTM D 2137	-40 °F	-40 °F	-40 °F	-40 °F
Ozone Resistance	ASTM D 1149	No cracks @ 7x magnification	No visible deterioration @ 7x magnification	No visible deterioration @ 7x magnification	No visible deterioration @ 7x magnification
Properties after Heat Aging	ASTM D573	≤1.5% weight change after 8 weeks @ 275° F, No cracks @ 7x magnification	Pass	Pass	Pass
	UAWS	Total radiation @ 8400 MJ/m ² UV, no cracking	Pass	Pass	Pass
Linear Dimensional Change	ASTM D 1204	±1%	0.2%	0.4%	0.4%
Water Absorption	ASTM D 471	±3%	0.7%	0.7%	0.7%
Factory Seam Strength	ASTM D 751	66 lbf	115 lbf (membrane failure) (171 kg/m)	145 lbf (membrane failure) (216 kg/m)	155 lbf (membrane failure) (231 kg/m)
Weather Resistance	ASTM D 155	10,080 kJ/m ² at 340 nm, No cracks @ 7x magnification	>20,000 KJ/(m ² . nm) at 340 nm	>25,000 KJ/(m ² . nm) at 340 nm	>25,000 KJ/(m ² . nm) at 340 nm

Note 1: Certain data is provided in MD (machine direction) x CMD (cross machine direction) format.

Note 2: Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide..

Additional Physical Properties					
Puncture Resistance	FTM 101 C Method 2031	Not established	>350 lb. (159 kg)	>380 lb. (172 kg)	>380 lb. (172 kg)
Permeance	ASTM E96	Not established	<0.08 Perms	<0.08 Perms	<0.08 Perms
Guarantee			Up to 20 years	Up to 25 years	Up to 30 years

Sustainability Ratings/Certifications							
Cool Roof Rating Council (CRRC)							
Color	Rated Product ID#	Initial			Aged		
		Solar Reflectance (ASTM C 1549)	Thermal Emittance (ASTM C 1371)	Solar Reflectance Index (ASTM E 1980)	Solar Reflectance (ASTM C 1549)	Thermal Emittance (ASTM C 1371)	Solar Reflectance Index (ASTM E 1980)
White	0676-0001	0.76	0.90	94	0.68	0.83	81
Energy Gray	0676-0045	0.72	0.87	88	0.67	0.90	82
Energy Tan	0676-0039	0.72	0.89	89	0.66	0.89	80
LEED Information							
Manufacturing Location				Mount Vernon, IN, New Columbia, PA, Cedar City, UT, Gainesville, TX			

Applicable Standards/Approvals		
	Miami Dade County Product Control Approved	UL Evaluation Report UL ERI306-01 ICC-ES Evaluation Report ESR-4676 (Cedar City, UT only)
	FM Approved (Refer to FM RoofNav.com for actual assemblies)	Meets or exceeds the requirements of ASTM D6878. State of Florida Approved
	Classified by UL in accordance with ANSI/UL 790. (Refer to UL Product iQ for actual assemblies).	Texas Department of Insurance Report RC-122 CRRR Rated — Can be used to comply with 2021 Title 24, Part 6, Cool Roof Requirements of the California Code of Regulations (White only)

Product Data										
Roll Size	12' Roll Size	12' Roll Weight (Average)	10' Roll Size	10' Roll Weight (Average)	8' Roll Size	8' Roll Weight (Average)	6' Roll Size	6' Roll Weight (Average)	5' Roll Size	5' Roll Weight (Average)
EverGuard® TPO 45	12' x 100' (3.66 x 30.5 m) 1,200 sq. ft. (111.5 sq.m)	307 lb. (139 kg)	10' x 100' (3.05 x 30.5 m) 1,000 sq. ft. (92.9 sq.m)	256 lb. (116 kg)	8' x 100' (2.43 x 30.5 m) 800 sq. ft. (74.3 sq.m)	204 lb. (93 kg)	6' x 100' (1.83 x 30.5 m) 600 sq. ft. (55.7 sq.m)	153 lb. (70 kg)	5' x 100' (1.52 x 30.5 m) 500 sq. ft. (46.5 sq.m)	128 lb. (58 kg)
EverGuard® TPO 60	12' x 100' (3.66 x 30.5 m) 1,200 sq. ft. (111.5 sq.m)	386 lb. (175 kg)	10' x 100' (3.05 x 30.5 m) 1,000 sq. ft. (92.9 sq.m)	322 lb. (146 kg)	8' x 100' (2.43 x 30.5 m) 800 sq. ft. (74.3 sq.m)	257 lb. (117 kg)	6' x 100' (1.83 x 30.5 m) 600 sq. ft. (55.7 sq.m)	194 lb. (88 kg)	5' x 100' (1.52 x 30.5 m) 500 sq. ft. (46.5 sq.m)	162 lb. (74 kg)
EverGuard® TPO 80	12' x 100' (3.66 x 30.5 m) 1,200 sq. ft. (111.5 sq.m)	504 lb. (228 kg)	10' x 100' (3.05 x 30.5 m) 1,000 sq. ft. (92.9 sq.m)	420 lb. (191 kg)	8' x 100' (2.43 x 30.5 m) 800 sq. ft. (74.3 sq.m)	336 lb. (152 kg)	6' x 100' (1.83 x 30.5 m) 600 sq. ft. (55.7 sq.m)	252 lb. (114 kg)	5' x 100' (1.52 x 30.5 m) 500 sq. ft. (46.5 sq.m)	210 lb. (95 kg)
Colors		White, Gray, Energy Gray, Slate Gray, Tan, Energy Tan, Desert Tan, Dark Bronze, Dark Brown, Goldenrod, Sky Blue, Regal Blue, Electric Blue, Hartford Green, Patina Green, Regal Red, Terra Cotta.								
Storage		Store on pallets in a clean, dry area at temperatures below 100 °F (38 °C).								
Safety Warning		Membrane rolls are heavy. Employ at least two people to position and install.								



Visit gaf.com

For additional information, contact GAF Design Services at 1-877-423-7663 or designservices@gaf.com

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