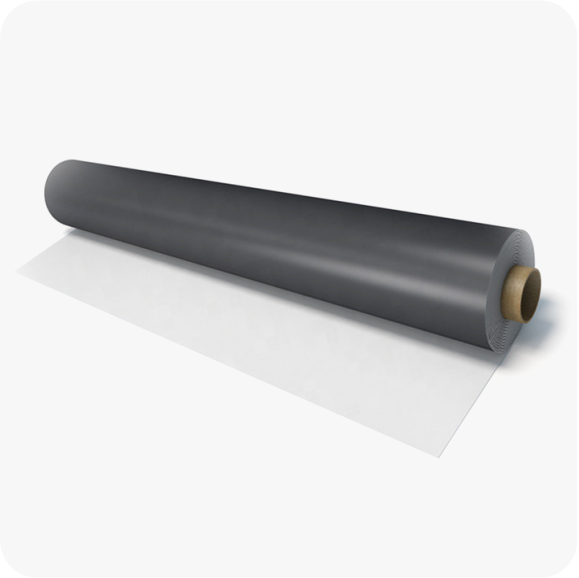
McGuire ROOFING PRODUCTS

FLEXGUARD TPO



(TPO) Waterproofing Membrane

Thermoplastic polyolefin (TPO) waterproofing membrane is a new type of water-proof coil produced by a single extrusion process without any plasticizers, using polyolefin polymer synthetic resin and EPDM as the base material, with antioxidant test, anti-aging agent, UV absorbent and other fillers. It has both flexibility and weldability. Polyster fiber mesh cloth can be added as reinforcement material, made of enhanced waterproof material.

Structure

⟵ Polymer resin sheet Internally
⟵ Reinforced fabrics
⟵ Polymer resin sheet

Product Specification

Thickness (mil)	Width/ft.	Length/ft.
45	5,6,10	100
60	5,6,10	100
80	5,6,10	100

Features

RAW MATERIALS

Made of high quality polypropylene and rubber co polymerization, there are no plasticizers and other harmful substances in McGuires Flexguard TPO

McGuire Flexguard TPO has excellent age resistance. It also maintains flexibility in-40c temperatures and does not become hard and brittle.

EXCELLENT QUALITY

The shrink rate of McGuire FlexGuard TPO is very low, the material is strong, highly impact resistant, puncture resistance and holds a long service life.

CONVENIENT CONSTRUCTION

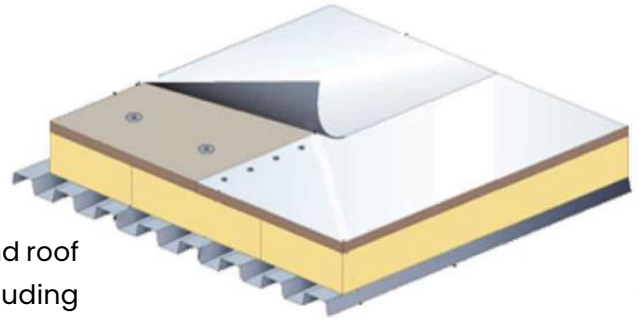
Roofing Assembly is made simple with McGuire FlexGuard TPO, This product is easy to weld and efficient providing a strong seam connection. Seam peel strength is high, creating a sealed waterproof layer.

mcguireroofs.com sales@mcguireroofs.com 972.694.3324

FLEXGUARD TPO

PRODUCT TYPE

Smooth (Category H)
Reinforced with polyester scrim (Category P)



APPLICATION SCOPE

The membrane is suitable for use in new construction and roof restoration applications over approved substrates, including steel, concrete, wood, gypsum, and existing compatible roofing systems, when installed in accordance with manufacturer requirements and project specifications.

Method Of Application

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.

All rough surfaces that can damage the membrane shall be repaired as specified to offer a smooth substrate.

All surface voids greater than 1/4" (6.3mm) wide should be properly filled with an acceptable fill material. McGuire FlexGuard TPO waterproofing membrane is installed as a continuous roofing or waterproofing layer on the roof. Rolls are over lapped (side laps and end laps) prior to heat welding the seam areas. Install the McGuire FlexGuard TPO in accordance with current. McGuire FlexGuard TPO specifications, details and workmanship requirement.

Product Advantages

- Enhanced chemical resistance
- Can increase a building's energy efficiency
- Excellent heat weldability
- Exceptional low-temperature flexibility
- Highly resistant to punctures, UV, ozone and oxidation

mcguireroofs.com sales@mcguireroofs.com 972.694.3324

McGuire ROOFING PRODUCTS

FLEXGUARD TPO

ASTM Performance Standards

Property	ASTM Standard	Performance Minimum	Typical Performance 45 Mil	Typical Performance 60 Mil
Overall Thickness	D 751	0.039"(1mm)	0.045"(1.14mm) ±1096	0.060"(1.52mm) ±1096
Coating Over Scrim	D 7635	0.015"(0.38mm)	0.017"(0.43mm)	0.021"(0.53mm)
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	1596	2596	2596
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	D1149	Pass (No Cracks)	Pass	Pass

Properties After Heating Aging (Retalned Values) ASTM D 573-5376 h (224 days or 32 weeks) at 240°F (116°C)

Breaking Strength	D 751, Grab Method	9096 Minimum	>9096	>9096
Elongation at Break	D 751, Grab Method	9096 Minimum	>9096	>9096
Tearing Strength	D 751	9096 Minimum	>9096	>9096
Weight of Change		±196 Minimum	<196	<196
Linear Dimension Change	D 1204 6hat 158°F (70°C)	±196 Minimum	<196	<196
Water Absorption	D 471	±396 Minimum	<396	<396
Weather Resistance 176°F(80°C) Black Panel, no cracking, crazing when wrapped around a3"(76.2mm) mandrel and inspected at 7x magnification	G 155	10,800 KJ/m2 Minimum	<60,000 KJ/m2	<60,000 KJ/m2
Puncture Resistance	FTM 101C, Method 2031	-	265(1,180)	300(1,300)
Dynamic Puncture Resistance MD	D 5635	-	Pass (20 J)	Pass (40 J)
Dynamic Puncture Resistance CD	D 5635	-	Pass (35 J)	Pass (50 J)
Static Puncture Resistance	D 5602	-	Pass (25 kg)	Pass (25 kg)
Air Permeance (Material)	E 2178*	<0.004 ft3/ft2 (0.02L/(s*m2)	Pass	Pass

mcguireroofs.com sales@mcguireroofs.com 972.694.3324