IB® TPO SM MEMBRANE

IB Roof Systems®

Product Description:

IB TPO SM Membrane is a thermoplastic polyolefin (TPO) resin based single ply membrane with a weft-inserted polyester scrim, for added strength, tear resistance, and enhanced moisture resistance. Designed for premium performance in low-slope roofing, reroofing and recover applications. IB TPO SM membrane meets all the requirements of ASTM D6878 and are available in 60-mil, and 80-mil thicknesses in various widths.

Features:

- **Performance:** Meets and exceeds ASTM D 6878-21, for Thermoplastic Polyolefin (TPO) Membrane and higher than average thickness over scrim per (D7635)
- **Contractor Friendly:** Wide welding window for easier installation providing a good range of speeds and temperatures during installation.
- **Climate Resilience:** Excellent flexibility, highly reflective which helps reduce heat absorption and lowers energy costs. Excellent UV resistance and ozone resistance.
- **Energy Benefits:** Cool Roof Rating (CRRC), compliant with California Title 24 requirements for Solar Reflectance and Emissivity, and LEED (SRI) for (White, Tan)
- **Made in USA:** IB TPO SM Membranes are manufactured in the USA with globally sourced materials.

Uses:

IB TPO SM Membranes can be installed in new, recovery, and re-roof constructions as the primary field membrane and base flashing at all roofs to wall transitions. It can be adhered, induction welded, or mechanically attached to a properly prepared substrate with approved fasteners and membrane plates or approved membrane adhesive. All seams are heat-welded using standard hot-air welding devices. Available in 5', 6', 8', 10' and 12' wide rolls in 60 mil, and 80 mil thickness.

Note: 6' and 12' widths are special order.

Available Colors:

White	Gray*	Tan*

**Gray and tan are special order only*

Approvals:

CRRC COOL ROOF RATING COUNCIL ®

FM APPROVED

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Visit our website for links to these agencies and listings at: www.ibroof.com.

Product details stated are nominal as manufactured, and the results of tests and/or calculations and therefore are non-binding and do not represent a guarantee or warranted characteristics. User and/or designer are responsible for confirming suitable performance for specific application and conforming with all applicable laws and regulations.

Packaging:

Membrane	Dimensions	Roll (Sq. Ft.)	Rolls / Pallet	Approx. Pallet Weight
60 Mil	5' x 100'	500 sq. ft.	8	1424 lbs.
	6' x 100'	600 sq. ft.	8	1728 lbs.
	8' x 100'	800 sq. ft.	8	2320 lbs.
	10' x 100'	1000 sq. ft.	8	2856 lbs.
	12' x 100'	1200 sq. ft.	8	3440 lbs.
80 Mil	5' x 100'	500 sq. ft.	4	980 lbs.
	6' x 100'	600 sq. ft.	4	1188 lbs.
	8' x 100'	800 sq. ft.	4	1572 lbs.
	10' x 100'	1000 sq. ft.	4	1964 lbs.
	12' x 100'	1200 sq. ft.	4	2392 lbs.

Storage:

Store IB TPO SM membrane away from objects that could cause physical damage or create punctures as well as ignition sources. The membrane is flammable and will catch fire when exposed to open flame.

System Installation Methods:

Mechanically Attached | Adhered | Induction Welded

Warranties:

IB TPO SM Membrane Warranty options when installed by IB Authorized Applicators subject to IB Roof Systems specifications and warranty requirements:

Membrane	Warranty Term Options
IB TPO 60 SM Membrane	10, 15, 20 Years
IB TPO 80 SM Membrane	10, 15, 20, 25

- Limited Material Warranty
- Warranty Plus Labor & Material Warranty
- Total Systems Warranty

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Application:

Install the IB TPO membranes in accordance with IB TPO Specifications and Construction Details. Refer to www.ibroof.com for additional installation instructions. Membranes must not be applied during adverse weather or without precautionary measures in temperatures below 40°F (4°C). All surfaces should be clean, dry, free of dirt, dust, debris, oils, soaps, coatings, and other contaminants that may inhibit bonding.

Safety Precautions:

Use proper equipment and assistance when moving, lifting, handling, or transporting membrane rolls to avoid personal injuries as well as damage to the membrane. Refer to the Product Safety Data Sheet for additional safety information.

Energy & Green Benefits:

Standard	Color	Type	Solar Reflectance	Thermal Emittance
CRRC	White	Initial	0.77	0.87
		Aged 3-Year	0.70	0.86
	Tan	Initial	0.67	0.87
		Aged 3-Year	0.62	0.90
	Gray	Initial	0.35	0.87
		Aged 3-Year	0.34	0.90
Title 24	White	Meets	0.77	0.87
	Tan	Meets	Aged 3 Year SRI = 75	
LEED (SRI)	White	Initial	95	
		Aged 3-Year	85	
	Tan	Initial	81	
		Aged 3-Year	75	
	Gray	Initial	39	
		Aged 3-Year	37	
The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.				

Property		ASTM Method	Requirement for ASTM D6878 (Minimum)	IB TPO SM 60 Mil		IB TPO SM 80 Mil	
				MD	XMD	MD	XMD
Thickness over scrim		D7635	>30% of overall thickness	0.27		0.33	
Tensile Properties	Breaking strength, min. (lbf/in)	D751	220 lbf. (979 N)	Pass	Pass	Pass	Pass
	Elongation at the break, min. %	D751	>15%	27%	27%	29%	31%
	Tearing strength, min. (lbf)	D751	55 lbf. (245 N)	Pass	Pass	Pass	Pass
	Factory Seam Strength	D751	66 lbf. (290 N)	112 lbf		137 lbf	
Resilient Properties	Water Absorption, max, %	D471	3.0	Pass		Pass	
	Brittleness Point, max	D2178	-40°F (No cracks)	Pass		Pass	
	Ozone Resistance	D1149	No cracks	Pass		Pass	
Heat Aging Properties	Retention of properties after heat aging	D573	@ 240°F	Pass		Pass	
	Breaking Strength, % (after aging)	D751	90	Pass		Pass	
	Elongation, % (after aging)	D751	90	Pass		Pass	
	Tearing Strength, % (after aging)	D751	60	Pass		Pass	
	Weight Change, max, % (after aging)	D751	±1.5%	Pass		Pass	
	Linear Dimensional Change, max, % @ 158°F	D1204	±1.0% (+6 hours)	Pass		Pass	
Weathering Properties	Accelerated Weathering, min	G154 G155	10,080 kj/m² • nm @ 340 nm (4,000 hrs @ 0.70 W)	>20,160 kj/m2 (>8,000 hrs)		>20,160 kj/m2 (>8,000 hrs)	
	Cracking after Accelerated Weathering (@ 7x magnification)	G155	No Cracks	Pass		Pass	
	Resistance of Synthetic Polymer Material to Fungi	G21	NA	0 Rating		0 Rating	
Impact Properties	Dynamic puncture resistance	D5635	@ 25 Joules	Pass		Pass	
	Static puncture resistance	D5602	@ 44 lb (20 kg	Pass		Pass	
	Puncture Resistance (FTMS 101C, Method 2031)	NA	NA	371 lbs.		526 lbs.	
Air & Moisture	Moisture Vapor Transmission, 0 g/m² per 24 hours	E96	NA	Pass		Pass	
	Hydrostatic Resistance, Mullen	D751	NA	474 psi		474 psi	
	Air Permeance, @ <0.0005 L/(s•m²)	E2178	NA	Pass		Pass	
* Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.							

Environmental:

Recycle Content	
Post Consumer	0%
Post Industrial	5%

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