JM TPO — 45 MIL

Thermoplastic Polyolefin Membrane

Meets or exceeds the requirements of ASTM D 6878

Features and Components

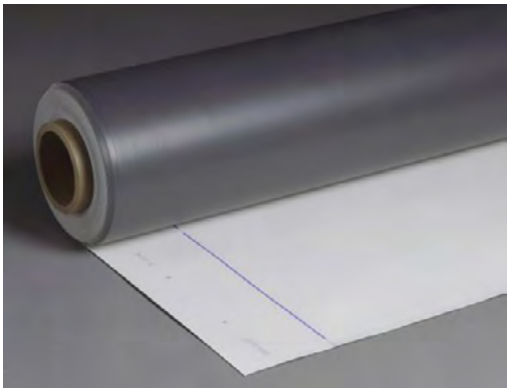
Thickness Over Scrim: Optimized and tested on a continual basis with a state-of-the-art thickness gauge to verify that the thickness valued by our customers is incorporated into the sheet.

One of the Widest Melt Windows: Promotes better welds over a wider variety of speeds and temperatures, and leads to a softer, more flexible and workable sheet.

Reinforced fabric scrim layer and top-ply thickness: Lends to durable physical properties including:

- Long-term weathering, UV resistance and heat-aging properties
- High breaking and tearing strength

Optimized TPO formulation: delivers high-performance ozone resistance, cool roof reflectivity and overall weather resistance.



Component: **M** Membrane — Single Ply

Colors

Grey*	White	Tan*

**Grey and Tan lead times are subject to availability and may require an upcharge for smaller projects.*

System Compatibility

This product may be used as a component in the following systems. Please reference product application for specific installation methods and information.

Multi-Ply	BUR		APP		SBS			
	HA	CA	CA	HW	HA	CA	HW	SA
	Do not use with Multi-Ply systems							

Single Ply	TPO		PVC		EPDM		
	MF	FA	MF	FA	MF	FA	BA
	Compatible with the selected Single Ply systems above						

Key: **HA** = Hot Applied **CA** = Cold Applied **HW** = Heat Weldable **SA** = Self Adhered **MF** = Mechanically Fastened **FA** = Fully Adhered **BA** = Ballasted

Energy and the Environment

Standard			Reflectivity	Emissivity
CRRC®	White	Initial	0.77	0.87
		3 Yr. Aged	0.70	0.86
	Tan	Initial	0.67	0.87
		3 Yr. Aged	0.62	0.90
	Gray	Initial	0.35	0.87
		3 Yr. Aged	Pending	Pending
CA Title 24	White	Pass	0.77	0.87
ENERGY STAR®	White	Initial	0.78	0.87
		3 Yr. Aged	0.68	
	Tan	Initial	0.67	0.87
		3 Yr. Aged	0.62	
LEED® (SRI)	White	Initial	101	
		3 Yr. Aged	85	
	Tan	Initial	81	
		3 Yr. Aged	75	
	Gray	Initial	39	
		3 Yr. Aged	Pending	
Recycled Content	Post-consumer		0%	
	Post-industrial		5%	

The LEED® Solar Reflectance Index (SRI) is calculated per ASTM E1980.

Peak Advantage® Guarantee Information

Product	Guarantee Term
JM TPO 45	5, 10, or 15 years

Codes and Approvals

CLASSIFIED UL US — FM APPROVED — MIAMI-DADE COUNTY APPROVED, Miami-Dade County Product Control Approved

Installation/Application

Fully Adhered | Mechanically Fastened | Hot Air Weld

Refer to JM TPO application guides and detail drawings for instructions.

Packaging and Dimensions

Roll Widths	5' (1.52 m)	8' (2.44 m)	10' (3.05 m)
Roll Lengths	100' (30.48 m)		
Roll Coverage	500 ft² (46.45 m²)	800 ft² (74.32 m²)	1000 ft² (92.90 m²)
Rolls per Pallet	9		
Pallet Weight	1197 lb (543 kg)	1890 lb (857.3 kg)	2385 lb (1081.8 kg)
Pallets per Truck*	36	24	16
Producing Location	Scottsboro, AL		

*Assumes 48' flatbed truck and does not reflect pallets of accessories or impact of mixed sizes.

Refer to the Safety Data Sheet and product label prior to using this product. The Safety Data Sheet is available by calling (800) 922-5922 or on the Web at www.jm.com/roofing.

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Tested Physical Properties

Physical Properties		ASTM Test Method	Standard for ASTM D 6878 (Min.)	JM TPO – 45 mil	
				MD*	XMD**
Strength	Breaking Strength, min, lbf (N)	D 751	220 (976)	326 (1,450)	309 (1,374)
	Elongation at Break, min %	D 751	15	31	32
	Tearing Strength, min, lbf (N)	D 751	45 (200)	72 (320)	122 (543)
	Factory Seam Strength, min, lbf (N)	D 751	66 (290)	89 (396)	
Longevity	Thickness, min, in.	D 751	+/- 10% from Nominal	0.045 (Nominal)	
	Thickness Over Scrim, min, in. (mm)	D 7635	0.015	0.018 (0.46)	
	Water Absorption, max, %	D 471	3.0	0.10	
	Brittleness Point, max, -40°F	D 2137	No Cracks	Pass	
	Ozone Resistance	D 1149	No Cracks	Pass	
Heat Aged Performance	Properties after Heat Aging @ 240°F	D 573	Pass/Fail	Pass	
	Breaking Strength, % (after aging)	D 751	90	>90	>90
	Elongation, % (after aging)	D 751	90	>90	>90
	Tearing Strength, % (after aging)	D 751	60	>60	>60
	Weight Change, max, % (after aging)	D 751	±1.0	0.25	
	Linear Dimensional Change, max, % (after 6 hrs @ 158°F)	D 1204	±1.0	<0.1	
Weather Performance	Accelerated Weathering, min	G 151 & G 155	10,080 kj/m²•nm @ 340 nm (4,000 hrs @ 0.70 W)	>20,160 kj/m² (>8,000 hrs)	
	Cracking (@ 7x magnification)	G 155	No Cracks	Pass	

*MD = Machine Direction
**XMD = Cross-Machine Direction

Note: All data represents tested values.

Supplemental Testing

Physical Properties	ASTM Test Method	Standard for ASTM D 6878 (Min.)	JM TPO – 45 mil Result
Dynamic Puncture	D 5635	N/A	Pass @ 25 Joules
Static Puncture	D 5602	N/A	Pass @ 44 lb (20 kg)
Impact Resistance of Bituminous Roofing Systems	D 3746	N/A	Pass - minor indentations
Reflectance	C 1549	N/A	78%
Emittance	C 1371	N/A	0.87
Resistance of Synthetic Polymer Material to Fungi	G 21	N/A	0 rating
Puncture Resistance (FTMS 101C, Method 2031)	N/A	N/A	363 lb (165 kg)
Moisture Vapor Transmission	E 96	N/A	0 g/m² per 24 hours
Hydrostatic Resistance, Mullen	D 751	N/A	474 PSI (3268 kPa)

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