

# 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.





### 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.

Ply	BUR	AF	р			SBS			Ply		TF	°0			PVC			EPDM	
liti.	HA	CA	HW	HA	CA	HW	SA	MF	gle	MF	AD	SA	IW	MF	AD	IW	MF	AD	BA
Β	Do not use with multi-ply systems						Sin		Com	patible	with the	select	ed singl	e ply sy	stems a	above			
Key:	<b>HA</b> = Ho	t Applied	CA = Col	d Applied	HW = He	eat Weldable	SA =	Self Adhered	d MF=	Mecha	nically F	asteneo	d <b>IW</b> = 1	Inductio	n Weld	<b>BA</b> = B	allasted	<b>AD</b> = /	Adhered

## **Energy and the Environment**

	Standard		Reflectivity	Emissivity		
	White	Initial	0.77	0.87		
		3 Yr. Aged	0.70	0.86		
CRRC®	Tan	Initial	0.67	0.87		
GIIIG		3 Yr. Aged	0.62	0.90		
	Gray	Initial	0.35	0.87		
		3 Yr. Aged	0.34	0.90		
	White	Pass	0.77	0.87		
CA Title 24	Tan	Pass 3 Yr. Aged	SRI=75			
	White	Initial	95			
		3 Yr. Aged	85			
LEED®	Tan	Initial	81			
(SRI)		3 Yr. Aged	7	5		
	Gray	Initial	3	9		
		3 Yr. Aged	3	7		
Recycled	Post-co	nsumer	0	%		
Content	Post-in	dustrial	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**





# Installation/Application



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

## **Packaging and Dimensions**

Roll Widths	5' (1.52 m)	6' (1.83 m)	8' (2.44 m)	10' (3.05 m)	12' (3.66 m)			
<b>Roll Lengths</b>	100' (30.48 m)							
Roll Coverage	500 ft <sup>2</sup> (46.45 m <sup>2</sup> )	600 ft <sup>2</sup> (55.74 m <sup>2</sup> )	800 ft <sup>2</sup> (74.32 m <sup>2</sup> )	1000 ft <sup>2</sup> (92.90 m <sup>2</sup> )	1200 ft <sup>2</sup> (111.5 m <sup>2</sup> )			
Rolls per Pallet	8							
Pallet Weight	1136 lb (515.3 kg)	1368 lb (620.5 kg)	1792 lb (812.8 kg)	2272 lb (1030.6 kg)	2728 lb (1237.4 kg)			
Pallets per Truck*	30-36	22-28	18-22	15-19	10-12			
Producing Location	Scottsboro, AL							

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



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# **Tested Physical Properties**

			ASTM Standard for		JM TPO – 45 mil			
Phys	ical Properties	Test Method	ASTM D 6878 (Min.)	MD*	XMD**			
_	Breaking Strength, min, lbf (N)	D 751	220 (976)	326 (1,450)	309 (1,374)			
Strength	Elongation at Break, min %	D 751	15	31	32			
Stre	Tearing Strength, min, lbf (N)	D 751	45 (200)	72 (320)	122 (543)			
•	Factory Seam Strength, min, lbf (N)	D 751	66 (290)	89 (3	396)			
	Thickness, min, in.	D 751	+/- 10% from Nominal	0.045 (N	lominal)			
/ity	Thickness Over Scrim, min, in. (mm)	D 7635	0.015	0.018	(0.46)			
Longevity	Water Absorption, max, %	D 471	3.0	0.	10			
Lo	Brittleness Point, max, -40°F	D 2137	No Cracks	Pa	ISS			
	Ozone Resistance	D 1149	No Cracks	Pa	ISS			
	Properties after Heat Aging @ 240°F	D 573	Pass/Fail	Pass				
ce e	Breaking Strength, % (after aging)	D 751	90	>90	>90			
Heat Aged Performance	Elongation, % (after aging)	D 751	90	>90	>90			
eat	Tearing Strength, % (after aging)	D 751	60	>60	>60			
P H	Weight Change, max, % (after aging)	D 751	±1.0	0.1	25			
	Linear Dimensional Change, max, % (after 6 hrs @ 158°F)	D 1204	±1.0	<(	).1			
Weather Performance	Accelerated Weathering, min	G 151 & G 155	10,080 kj/m²•nm @ 340 nm (4,000 hrs @ 0.70 W)		0 kj/m² 10 hrs)			
Wea Perfori	Cracking (@ 7x magnification)	G 155	No Cracks	Ра	ISS			

\*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%
	E 903	N/A	80%
Emittance	C 1371	N/A	0.87
	E 408	N/A	0.96
SRI	E 1980	N/A	95
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)
Standard Test Method for Air Permeance of Building Materials	E 2178	N/A	Pass @ <0.0005 L/(s·m²) (Pass @ <0.0001 CFM/ft²)

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please 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. The physical and chemical properties of the product listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check with the regional sales representative nearest you for current information.

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