

JM TPO FB 135

Fleece Backed Thermoplastic Polyolefin Membrane

Meets or exceeds the requirements of ASTM D 6878

Features and Components

Integral Polyester Fleece Backing: In-line application of fleece allows for stronger bond for polyester backing that gives more flexibility in varying substrates for mechanically fastened or adhered systems.

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 are special order only.

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

PI	BUR	AF	PP	SBS				
葟	HA	CA	HW	HA	CA	HW	SA	MF
Ę	Do not use with multi-ply systems							



Key: HA = Hot Applied CA = Cold Applied HW = Heat Weldable SA = Self Adhered MF = Mechanically Fastened IW = Induction Weld BA = Ballasted AD = 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	
Citio		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	8	1	
(SRI)		3 Yr. Aged	75		
	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

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Product	Guarantee Term
JM TPO FB 135	5, 10, 15, 20, 25, or 30 years

Codes and Approvals







Installation/Application



Adhered





Mechanically Hot Air Weld

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

Packaging and Dimensions

Roll Width	10' (3.05 m)
Roll Length	50' (15.24 m)
Roll Coverage	500 ft ² (46.45 m ²)
Rolls per Pallet	8
Pallet Weight	2,160 (979.8 kg)
Pallets per Truck*	16
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 – FB 1351	
Phys	ical Properties	Test Method	ASTM D 6878 (Min.)	MD*	XMD**
	Breaking Strength, min, lbf (N)	D 751	220 (976)	545 (2,424)	508 (2,260)
Strength	Elongation at Break, min %	D 751	15	33	33
Stre	Tearing Strength, min, lbf (N)	D 751	45 (200)	64 (285)	185 (823)
	Factory Seam Strength, min, lbf (N)	D 751	66 (290)	171 (761)	
	Thickness, min, in.	D 751	+/- 10% from Nominal	0.080 (N	lominal)
<u>₹</u>	Thickness Over Scrim, min, in. (mm)	D 7635	0.015	0.033 (0.84)	
Longevity	Water Absorption, max, %	D 471	3.0	0.42	
2	Brittleness Point, max, -40°F	D 2137	No Cracks	Pass	
	Ozone Resistance	D1149	No Cracks	Pass	
	Properties after Heat Aging @ 240°F	D 573	Pass/Fail	Pass	
_ 9	Breaking Strength, % (after aging)	D 751	90	>90	>90
Heat Aged Performance	Elongation, % (after aging)	D 751	90	>90	>90
Heat	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)	10,080 kj/m² (4,000 hrs)	
Wes	Cracking (@ 7x magnification)	G 155	No Cracks	Pass	

JM TPO FB 135 is comprised of a 80 Mil TPO membrane and an integral fleece backing. The given physical properties are based on the JM TPO 80 Mil membrane.

Note: All data represents tested values.

Supplemental Testing

Physical Properties	ASTM Test Method	Standard for ASTM D 6878 (Min.)	JM TPO – FB 135 Result
Dynamic Puncture	D 5635	N/A	Pass @ 35 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

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.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville roofing products and systems, visit www.jm.com/terms-conditions.

^{*} MD = Machine Direction

^{**} XMD = Cross-Machine Direction