

Meets the requirements of ASTM D 6164, Type I, Grade G

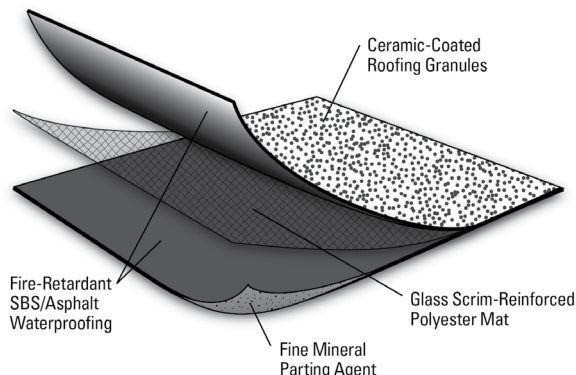
### Features and Components

DynaLastic 180 FR is used as a polyester-reinforced mineral-surfaced cap or flashing sheet in a variety of multi-ply roofing systems.

**Ceramic-Coated Roofing Granules:** Specifically engineered for optimal embedment in the SBS-blend sheet. The ceramic coating promotes excellent long-term adhesion. The granules, available in White or Black.

**High-Quality SBS Rubber and Asphalt Blend:** Lends elasticity and flexibility to the sheet. The elongation and recovery properties allow the product to easily accommodate the continual expansion and contraction experienced on all roofs. The FR blend contains additional fire-retardant additives.

**Polyester-Reinforced Mat:** Polyester mat with glass-scrim reinforcement offers robust tear strength and puncture resistance, allowing for high wind performance and an excellent hail rating. The sheet also exhibits strong dimensional stability and enhanced elongation.



Component	<b>M</b> Membrane
Type	<b>CS</b> Cap Sheet
	<b>FL</b> Flashing



Colors: White, Black, Tan & 3M™ Smog Reducing Granule

**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	HW	HA	CA	HW	SA	MF	IW	BA	AD
Compatible with the selected multi-ply systems above											

Single Ply	TPO				PVC			EPDM		
	MF	AD	SA	IW	MF	AD	IW	MF	AD	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 IW = Induction Weld BA = Ballasted AD = Adhered

### Energy and the Environment

Test	Initial	3-Year Aged
Reflectivity* (ASTM C 1549)	0.28	0.25
Emissivity* (ASTM C 1371)	0.89	0.92
Solar Reflectance Index* (SRI) - E 1980	29	26
Pre-Consumer Recycled Content	0%	
Post-Consumer Recycled Content	0%	

\*Standard White Granule only

### Peak Advantage® Guarantee Information

Systems	Guarantee Term
When used in most 2-5 ply JM SBS systems.*	Up to 30 years

\*Contact JM Technical Services for specific system requirements for guarantee lengths.

### Codes and Approvals



### Product Application



Hot Asphalt



Cold Applied

- May be installed in Type IV asphalt or in an approved JM adhesive
- Laps may be installed using heat-welding techniques
- Refer to JM SBS modified bitumen specifications and detail drawings for application and slope information

### Packaging and Dimensions

Roll Coverage*	95.8 ft <sup>2</sup> (8.9 m <sup>2</sup> )
Roll Length	32' 10" (10.01 m)
Roll Width	39 3/8" (1 m)
Roll Weight	101 lb (46 kg)
Rolls per Pallet	20
Pallet Weight	2,198 lb (997 kg)
Pallets per Truck**	22
Producing Locations	South Gate, CA Macon, GA Plattsburgh, NY

\*Assumes a 4" side lap \*\*Assumes 48' flatbed truck.

**Meets the requirements of ASTM D 6164, Type I, Grade G**

**Tested Physical Properties**

Physical Properties		ASTM Test Method	Standard for ASTM D 6164, Type I, Grade G (Min.)	DynaLastic 180 FR	
				MD*	XMD**
Strength	Tensile Tear	D 5147	55 lbf (245 N)	125 lbf (556 N)	90 lbf (400 N)
	Peak Load at 0°F (-18°C)	D 5147	70 lbf/in (12 kN/m)	110 lbf/in (19.3 kN/m)	90 lbf/in (15.8 kN/m)
	Peak Load at 73.4°F (23°C)	D 5147	50 lbf/in (8.8 kN/m)	80 lbf/in (14.0 kN/m)	60 lbf/in (10.5 kN/m)
Longevity	Low Temp. Flexibility	Unconditioned	D 5147	0°F (-18°C)	-20°F (-29°C)
		90-Day Heat Conditioned	D 5147	0°F (-18°C)	-20°F (-29°C)
	Compound Stability	D 5147	215°F (102°C)	250°F (121°C)	
	Granule Loss	D 4977	2 g (0.07 oz)	0.7 g (0.02 oz)	
	Thickness	D 5147	130 mil (3.3 mm)	157 mil (4.0 mm)	
	Selvage Edge Thickness	D 5147	N/A	119 mil (3.0 mm)	
	Elongation at Peak Load at 0°F (-18°C)	D 5147	20%	35%	40%
	Elongation at Peak Load at 73.4°F (23°C)	D 5147	35%	55%	60%
	Ultimate Elongation at 73.4°F (23°C)	D 5147	38%	70%	80%
Aged Performance	90-Day Heat-Conditioned Peak Load at 0°F (-18°C)	D 5147	70 lbf/in (12 kN/m)	110 lbf/in (19.3 kN/m)	90 lbf/in (15.8 kN/m)
	90-Day Heat-Conditioned Elongation at Peak Load at 0°F (-18°C)	D 5147	20%	25%	25%
	90-Day Heat-Conditioned Peak Load at 73.4°F (23°C)	D 5147	50 lbf/in (8.8 kN/m)	85 lbf/in (14.9 kN/m)	65 lbf/in (11.4 kN/m)
	90-Day Heat-Conditioned Elongation at Peak Load at 73.4°F (23°C)	D 5147	35%	35%	45%
	90-Day Heat-Conditioned Ultimate Elongation at 73.4°F (23°C)	D 5147	38%	45%	45%
Installation	Dimensional Stability	D 5147	1.0%	0.2%	0.1%
	Net Mass per Unit Area	D 146	75 lb/100 ft² (34 kg/9.29 m²)	93 lb/100 ft² (42 kg/9.29 m²)	
	Roll Weight	D 146	N/A	101 lb (46 kg)	

\*MD = Machine Direction

\*\*XMD = Cross-Machine Direction

Note: All data represents tested values.

**Supplemental Testing**

Physical Properties		ASTM Test Method	DynaLastic 180 FR Result
Cyclic Joint Displacement	Initial	D 5849	Pass at 500 cycles*
	After 90-Day Heat Conditioning per ASTM D 5147	D 5849	Pass at 200 cycles*
Coefficient of Friction	Static	D 1894	1.32
	Kinetic	D 1894	0.89

\*In a min 2-ply system when adhered with any combination of cold applied, hot applied and or heat-weld that is approved by JM for application.

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/](http://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](http://www.jm.com/terms-conditions).