

# TECHNICAL INFORMATION SHEET

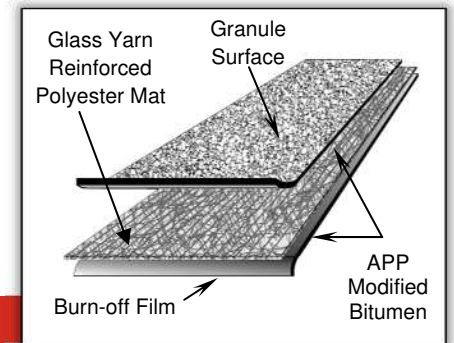
## APP 180 FR

### Item Description

- 1 Roll – UltraWhite™ (1 Square)
- 1 Roll – White Sheet (1 Square)
- 1 Roll – Black Sheet (1 Square)

### Item Number

- W70PUWP180F
- W70PWP180F
- W70PBP180F



Meets or exceeds performance requirements of ASTM D 6222, Type I, Grade G

### Product Information

#### Description:

Firestone APP 180 FR is a granule-surface APP modified bitumen roofing membrane designed to be heat-welded. It consists of select asphalt, modified with atactic polypropylene, and strengthened with a fiber glass reinforced polyester nonwoven mat [190 g/m<sup>2</sup> (3.9 lb/100 ft<sup>2</sup>)] made with 100% recycled PET fibers. The combination results in a flexible and durable material that exceeds the performance requirements of ASTM D 6222 Type I, Grade G. APP 180 FR is a membrane that is strong and stable, and resistant to natural forces and other factors on the roof-top. The addition of fire-retardant materials increases the fire resistance of the membrane. APP 180 FR is ideal for both new construction and re-roofing applications as a cap sheet or as a flashing sheet in single or multi-ply APP applications.

### Product Packaging

Roll Width:	3' 3" (1 m)	Pallet Size:	48" x 39" (1.2 m x 1 m)
Roll Length:	32' 10" (10 m)	Rolls Per Pallet:	20
Net Coverage:	98 ft <sup>2</sup> (9.1 m <sup>2</sup> )	Weight per Pallet:	2,090 lb (950 kg)
Roll Weight:	102 lb (46 kg)		

#### Method of Application:

- APP 180 FR membranes must be fully heat-welded to an approved substrate.
- Please see the APP Design and Application Guide at [www.firestonebpc.com](http://www.firestonebpc.com) for detailed application information.

#### Acceptable Immediate Substrates for Heat-Welded Application:

- Structural Concrete (must be clean, dry, properly cured, and primed with ASTM D-41 primer).
- Approved Firestone base sheet.
- Existing Smooth Surface BUR or APP Modified Bitumen (must be clean, smooth and primed with ASTM D-41 primer).
- DensDeck® Prime, SECUROCK® Gypsum Fiber.

**NOTE:** Please consult the APP Design Guide and QuickSpecs online at [www.firestonebpc.com](http://www.firestonebpc.com) to review specific information regarding the type of deck and insulation in use.

#### Storage:

- All material should be stored out of the weather in a clean, dry area in its original unopened packaging at a minimum of 50 °F (10 °C) and a maximum of 100 °F (38 °C) so that it will be 50 °F (10 °C) or above at the time of application.
- Do not stack Firestone APP 180 FR membrane more than two (2) pallets high.
- If the material must be stored temporarily on the roof before application, it must be elevated from the roof surface on a pallet, stored on end, and covered from the weather with a light colored opaque tarp in a neat, safe manner that does not exceed the allowable load limit of the storage area.

# TECHNICAL INFORMATION SHEET

## APP 180 FR

### Precautions:

- For safety information, refer to the Safety Data Sheet (SDS) for APP Membranes and Flashing.
- Take care when transporting and handling Firestone Modified Bitumen rolls to avoid punctures and other types of physical damage.
- Isolate waste products, petroleum products, grease, oil (mineral and vegetable) and animal fats from all Firestone Modified Bitumen membranes.

### LEED® Information:

Post Consumer Recycled Content: 6%

Post Industrial Recycled Content: 0%

Manufacturing Location: Beech Grove, IN

\*NOTE: LEED® is a registered trademark of the U.S. Green Building Council.



### Typical Properties (Meets ASTM D 6222, Type I, Grade G)

Property	ASTM Standard	ASTM Standard Required Value	Typical Performance
Product Thickness:	D 5147	160 mil (4 mm)	165 mil (4.2 mm)
Net Mass:	D 146	85 lb/100 ft <sup>2</sup> (4,150 g/m <sup>2</sup> )	97 lb/100 ft <sup>2</sup> (4,736 g/m <sup>2</sup> )
Bottom Side Coating:	D 5147	30 mil (0.76 mm)	43 mil (1.10 mm)
Peak Load at 73 °F (23 °C):	D 5147	50 lbf/in, MD (8.8 kN/m, MD)	55 lbf/in, MD (9.6 kN/m, MD)
		50 lbf/in, XMD (8.8 kN/m, XMD)	55 lbf/in, XMD (9.6 kN/m, XMD)
Elongation at Peak Load at 73 °F (23 °C):	D 5147	23%, MD	30%, MD
		23%, XMD	30%, XMD
Peak Load at 0 °F (-18 °C):	D 5147	60 lbf/in, MD (10.5 kN/m, MD)	65 lbf/in, MD (11.4 kN/m, MD)
		60 lbf/in, XMD (10.5 kN/m, XMD)	65 lbf/in, XMD (11.4 kN/m, XMD)
Elongation at Peak Load at 0 °F (-18 °C):	D 5147	10%, MD	15%, MD
		10%, XMD	15%, XMD
Ultimate Elongation at 5% of Peak Load 73 °F (23 °C):	D 5147	30%, MD	40%, MD
		30%, XMD	40%, XMD
Tear Strength at 73 °F (23 °C):	D 5147, D 4073	70 lbf, MD (311 N, MD)	75 lbf, MD (334 N, MD)
		70 lbf, XMD (311 N, XMD)	75 lbf, XMD (334 N, XMD)
Low Temperature Flexibility:	D 5147	32 °F (0 °C)	32 °F (0 °C)
Dimensional Stability:	D 5147, D 1204	1% Change, MD	0.2% Change, MD
		1% Change, XMD	0.2% Change, XMD
Compound Stability:	D 5147	230 °F (110 °C)	270 °F (132 °C)
Granule Embedment, max	D 4977	2 g	0.5 g
Water Absorption:	D 5147, D 95	3.2%	0%
Moisture Content:	D 5147, D 95	1%	0%
Low Temperature Unrolling:	D 5636	41 °F (5 °C)	0 °F (-18 °C)

# TECHNICAL INFORMATION SHEET

## APP 180 FR

### Radiative Properties (UltraWhite Sheet Only)

<u>Cool Roof Rating Council (CRRC):</u>	<u>UltraWhite Sheet: Initial / 3 yr</u>
Solar Reflectance	0.71 / Pending
Thermal Emittance	0.87 / Pending
Rated Product ID	0034
Licensed Manufacturer ID	0608
Classification	Production Line
Solar Reflectance Index (SRI)*	87
* SRI calculated using the ORNL (DOE) calculator, ASTM E 1980-01	

**NOTE:** The initial SRI for standard white membrane is 33. The SRI for black membrane is N/A.



Please contact Quality Building Services Technical Department at 1-800-428-4511 for further information.

*This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.*