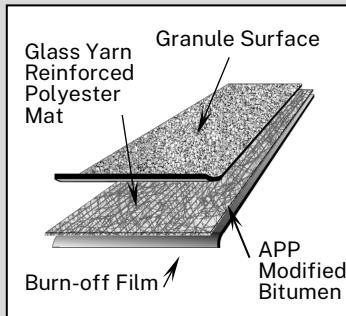


Technical Information Sheet



APP 180 FR

Item Description	Item Number
1 Roll – UltraWhite (1 Square)	W70PNUWP180F
1 Roll – White Sheet (1 Square)	W70PWP180FN
1 Roll – Black Sheet (1 Square)	W70PBP180FN

Description

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/m² (3.9 lb/100 ft²)] 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.

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

Product Packaging			
Property	Value	Property	Value
Roll Width	3 ft 3 in (1 m)	Pallet Size	48 x 39 in (1.2 x 1 m)
Roll Length	32 ft 10 in (10 m)	Rolls Per Pallet	20
Net Coverage	98 ft ² (9.1 m ²)	Weight per Pallet	2,180 lb (989 kg)
Roll Weight	109 lb (49 kg)		

Method of Application

1. APP 180 FR membranes must be fully heat-welded to an approved substrate.
2. Please reference the Elevate Asphalt Roofing Systems Guide for Applicators and Designers available on our website for detailed information regarding the application of APP 180 FR.

Acceptable Immediate Substrates for Heat-Welded Application

- Structural Concrete (must be clean, dry, properly cured, and primed with ASTM D-41 primer).
- Approved Elevate 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 reference the Elevate Asphalt Roofing Systems Guide for Applicators and Designers available on our website for detailed 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 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.

Precautions

- For safety information, refer to the Safety Data Sheet (SDS) for APP Membranes and Flashing.
- Take care when transporting and handling Elevate 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 Elevate Modified Bitumen membranes.
- Refer to Safety Data Sheets (SDS) for additional safety information.

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			
Properties	Test Method	Performance Minimum	Typical Performance
Product Thickness	D 5147	160 mil (4 mm)	165 mil (4.2 mm)
Net Mass	D 146	85 lb/100 ft ² (4,150 g/m ²)	97 lb/100 ft ² (4,736 g/m ²)
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) 50 lbf/in, XMD (8.8 kN/m, XMD)	55 lbf/in, MD (9.6 kN/m, MD) 55 lbf/in, XMD (9.6 kN/m, XMD)
Elongation at Peak Load at 73 °F (23 °C)	D 5147	23 %, MD 23 %, XMD	30 %, MD 30 %, XMD
Peak Load at 0 °F (-18 °C)	D 5147	60 lbf/in, MD (10.5 kN/m, MD) 60 lbf/in, XMD (10.5 kN/m, XMD)	65 lbf/in, MD (11.4 kN/m, MD) 65 lbf/in, XMD (11.4 kN/m, XMD)
Elongation at Peak Load at 0 °F (18 °C)	D 5147	10 %, MD 10 %, XMD	15 %, MD 15 %, XMD
Ultimate Elongation at 5 % of Peak Load 73 °F (23 °C)	D 5147	30 %, MD 30 %, XMD	40 %, MD 40 %, XMD
Tear Strength at 73 °F (23 °C)	D 5147, D 4073	70 lbf, MD (311 N, MD) 70 lbf, XMD (311 N, XMD)	75 lbf, MD (334 N, MD) 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 1 % Change, XMD	0.2 % Change, MD 0.2 % Change, XMD
Compound Stability	D 5147	230 °F (110 °C)	270 °F (132 °C)
Granule Embedment, max loss	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)

Typical Radiative Properties (Ultra White Sheet Only)	
Cool Roof Rating Council (CRRC)	Test Method
Solar Reflectance	0.72 / 0.63
Thermal Emittance	0.92 / 0.91
Rated Product ID	0034
Licensed Manufacturer ID	0608
Classification	Production Line
Solar Reflectance Index (SRI)*	89 / 77
*SRI calculated using the ORNL (DOE) calculator, ASTM E 1980-01	
**CRRC Rapid Ratings utilize the laboratory-aging practice in ASTM D7897 to simulate 3-year aged values.	



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

Please contact Holcim Technical Services at 800-428-4511 for further information.

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