

# TECHNICAL INFORMATION SHEET

## V-Force™ Vapor Barrier Membrane

Item Description  
1 Roll (5 squares)

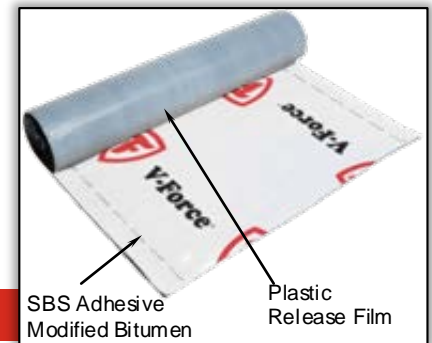
Item Number  
W56358900V

Meets or exceeds performance requirements of ASTM E 2178 and D 1970

### Product Information

#### Description:

Firestone V-Force Vapor Barrier Membrane is a vapor barrier comprised of SBS modified bitumen adhesive, factory-laminated to a tri-laminate woven, high-density polyethylene top surface. A polymeric release liner protects the adhesive. V-Force membrane is intended for use as a vapor retarder in Firestone roofing systems and may be used as a temporary roof membrane for up to ninety (90) days.



### Product Packaging

Roll Width:	3' 9" (1.14 m)	Boxed Rolls per Pallet:	16
Roll Length:	133' 9" (40.8 m)	Weight Per Pallet:	1,372 lb (622 kg)
Net Coverage:	468 ft <sup>2</sup> (43.5 m <sup>2</sup> )	Pallet Size:	48" x 39" (1.2 m x 1 m)
Roll Weight:	82 lb (37 kg)	Coverage per Pallet:	7,488 ft <sup>2</sup> (696 m <sup>2</sup> )

#### Method of Application:

1. V-Force membrane can be applied at ambient temperatures as low as 25 °F (-4 °C) as long as it has been stored in a heated area so that it will be between 50 °F (10 °C) and 100 °F (38 °C) at the time of application.
2. All substrates except metal decks must be primed with either Firestone SA Water Based Primer (W563587091) or Firestone SA Solvent Based Primer (W563587090).
3. V-Force membrane must be installed with minimum 3" (76.2 mm) side laps and 6" (152.4 mm) end laps.
4. V-Force membrane should be rolled in with a 75 lb (34 kg) roller to fully mate each roll to substrate, including all lap areas.

#### Acceptable Immediate Substrates for Self-Adhered Application:

**NOTE:** All substrates except metal decks must be primed with either Firestone SA Water Based Primer (W563587091) or Firestone SA Solvent Based Primer (W563587090).

- Structural Concrete (must be clean, dry, and properly cured).
- Steel Deck.
- Plywood or OSB.
- Existing Smooth Surface BUR or APP Modified Bitumen (must be clean and smooth).
- DensDeck® Prime, SECUROCK® Gypsum Fiber, STRUCTODEK® HD.
- Firestone ISOGARD™ HD Composite or Cover Board, RESISTA™ Insulation.

**NOTE:** Please consult the SBS 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.

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### 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 140 °F (60 °C) so that it will be 50 °F (10 °C) or above at the time of application.
- Do not stack V-Force Vapor Barrier 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.

### Shelf Life:

Shelf life of one year (12 months) can be expected when kept dry and stored in the original, unopened packaging between 60 °F and 80 °F (16 °C and 27 °C)

### Precautions:

- For safety information, refer to the Safety Data Sheet (SDS) for SBS Membranes and Flashing.
- Hot asphalt cannot be used to adhere roofing materials to V-Force Vapor Barrier membrane.
- 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: 0%  
 Post Industrial Recycled Content: 0%  
 Manufacturing Location: Québec, Canada



### Physical Properties (Meets ASTM E 2178 and D 1970)

Property	Test Method	Firestone Typical Performance
Thickness:	D 5147	30 mils (0.762 mm)
Tensile Strength:	D 5147	64 lbf/in (11.2 kN/m), MD
		88 lbf/in (15.4 kN/m), XMD
Ultimate Elongation, Bitumen Portion, at 73 °F (23 °C):	D 5147	52%, MD
		24%, XMD
Low Temperature Flexibility (Cold Bending):	D 5147	-31 °F (-35 °C)
Static Puncture:	D 5602	90 lbf (400 N)
Tear Strength at 73 °F (23 °C):	D 5601	84 lbf, MD (374 N)
		90 lbf, XMD (400 N)
Lap Adhesion at 73 °F (23 °C):	D 1876	6 lbf/in (1.05 kN/m)
Water Absorption, % by Weight:	D 5147, D 95	<0.1 %
Peel Resistance:	D 903	8 lbf/in (1.4 kN/m)
Water Vapor Permeance, Max.:	E 96 Procedure B	0.017 per ms (0.92 Ng/Pa•s•m²)
Air Permeability:	D 1970	0.00114 ft³/min•ft² (0.007 L/sec•m²)

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

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