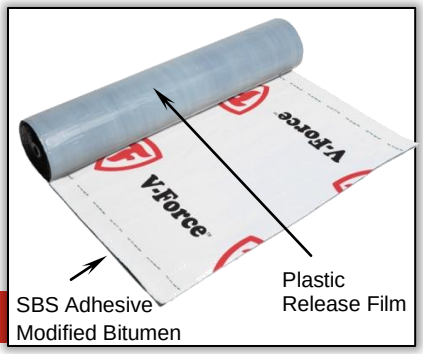
V-Force™ Vapor Barrier Membrane

Item Description	Item Number
1 Roll	W56358900V



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.

Method of Application:

1. V-Force membrane can be applied at ambient temperatures as low as 25 °F (-4 °C) as long as V-Force membrane 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 V-Force Water Based Primer (W563587091) or Firestone V-Force 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 sheets should be rolled in with a 75 lb (34 kg) roller to fully mate each roll to substrate, including all lap areas.

Acceptable Substrates

Substrate	Notes
Structural Concrete (New and Existing)	Newly poured decks must be completely dry and primed with V-Force Primer.
Plywood and OSB	Prime wood surfaces with V-Force Primer.
Cementitious Wood Fiber	Prime with V-Force Primer.
Gypsum	Prime with V-Force Primer.
Lightweight Concrete (Cellular or Air Entrained Only)	Perlite and Vermiculite containing lightweight is **not** acceptable.
Coal Tar Pitch Roofs	ISOGARD™ HD Cover Board is required.
Smooth Surfaced Asphalt	Clean and prime with V-Force Primer.
Steel Decks	DensDeck® Prime is required over steel decks for FM code compliance.
	In constructions where FM codes are not required, V-Force Membrane can be applied directly to the steel deck.
RESISTA™ Insulation	RESISTA Insulation cannot be installed in hot asphalt.
ISOGARD™ HD Cover Board	ISOGARD HD Cover Board cannot be installed in hot asphalt.
DensDeck®	DensDeck cannot be encapsulated in hot asphalt.
NOTE: The following are **not** acceptable substrates for V-Force Vapor Barrier Membrane: ISO 95+™ GL Insulation, Expanded Polystyrene, Extruded Polystyrene, Fiberglass, Wood Fiber, Perlite, existing single-ply roofs.	

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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.
- If 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.
- Do not stack V-Force material more than two (2) pallets high.

Shelf Life:

Shelf life of eighteen (18) months can be expected when stored in the original, unopened container between 50 °F and 140 °F (10 °C and 60 °C)

Precautions:

1. Refer to Material Safety Data Sheet (MSDS) for safety information.
2. Hot asphalt cannot be used to adhere roofing materials to V-Force membrane.
3. Take care when transporting and handling Firestone V-Force Vapor Barrier Membrane rolls to avoid punctures and other types of physical damage.
4. Isolate waste products, petroleum products, grease, oil (mineral and vegetable) and animal fats from all Firestone membranes.

LEED® Information:

Post Consumer Recycled Content: 0%
Post Industrial Recycled Content: 0%
Manufacturing Location: Drummondville, QC

Product Packaging

Roll Width:	45" (1.14 m)	Boxed Rolls per Pallet:	16
Roll Length:	133.8' (42.3 m)	Weight Per Pallet:	1,372 lb (622 kg)
Net Coverage:	468 ft^2 (43.5 m^2)	Pallet Size:	48" x 39" (1.2 m x 1 m)
Roll Weight:	82 lb (37 kg)	Coverage per Pallet:	7,488 ft^2 (696 m^2)

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Physical Properties

Tested in Accordance with ASTM D 5147, E 96, D 1876, D 1970 & E 2178

Property	Test Method	Firestone Typical Performance
Thickness:	D 5147	0.0325" (0.826 mm)
Net Mass:	D 5147	16.4 lb/100 ft^2 (555 g/m^2)
Max Load at Break at 73 °F (23 °C):	D 5147	64 lbf/in, MD (11 kN/m)
		88 lbf/in, XMD (15 kN/m)
Ultimate Elongation, Bitumen Portion, at 73 °F (23 °C):	D 5147	52%, MD
		24%, XMD
Low Temperature Flexibility:	D 5147	-30 °F (-34 °C)
Tear Strength at 73 °F (23 °C):	D 5147	84 lbf, MD (374 N)
		90 lbf, XMD (400 N)
Moisture Vapor Permeance, Max.:	E 96	0.02 Perms (0.92 Ng/Pa•s•m^2)
Water Absorption, % by Weight:	D 5147	<0.1
Lap Adhesion at 73 °F (23 °C):	D 1876	6 lbf/in (1051 N/m)
Air Permeability:	E 2178	0.00114 ft^3/min•ft^2 (0.007 L/sec•m^2)
Dimensional Stability at 73 °F (23 °C):	D 5147	-0.1% Change, MD
		0.2% Change, XMD

Please contact your Firestone Roof Systems Advisor at 1-800-428-4511 for further information.

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