

PRODUCT DATA SHEET

SIKAPLAN® FASTENED ENERGYSMART ROOF® MEMBRANE



__45__60

__60 FELTBACK __60 3 oz. FELTBACK

Sikaplan Fastened EnergySmart Roof Membrane is a highly reflective, thermoplastic PVC membrane, with polyester scrim reinforcement offered in 45 mil (1.2 mm) and 60 mil (1.5 mm) thicknesses. It is also available in 60 mil (1.5 mm) feltback membrane that incorporates a 9 oz. felt and a 60 mil (1.5 mm) feltback membrane that incorporates a 3 oz. felt.

PRODUCT INFORMATION

USES

Sikaplan Fastened EnergySmart Roof Membrane is mechanically attached using various attachment components over approved substrates.

AREAS OF APPLICATION

- In-seam disc systems
- In-seam batten, double-weld systems
- RhinoBond® systems
- Single-ply recovers – 60 mil (1.5 mm) 3 oz. feltback
- Modified bitumen and BUR recovers – 60 mil (1.5 mm) 9 oz. feltback

FEATURES / BENEFITS

- Excellent tear strength resistance
- Heat welded seams for strength and security
- Felt backing acts as the separation layer between the existing and new roof systems
- Felt backing eliminates the need to install a cover board or loose-laid felt over the existing roof system

TESTS

CODES / APPROVALS

- FM Global
- Underwriters Laboratories
- Underwriters Laboratories of Canada
- ICC Code Compliance – ESR 1157
- Miami-Dade County
- Florida Building Code
- California Title 24
- LEED/Green Globes

PRODUCT DATA

FORM

COMPOSITION

Thermoplastic PVC membrane containing ultraviolet light stabilizers, flame retardant and polyester scrim reinforcement with a unique lacquer coating on the top surface.

COLOR

Top: White, Reflective Gray, and Tan
Bottom: Dark Gray

PACKAGING

- **45 mil (1.2 mm) Membrane (White Only)***

Bareback: 10 ft x 150 ft (3 m x 45 m) roll, 418 lbs (190 kg) per roll,
8 rolls per pallet
5 ft x 150 ft (1.5 m x 45 m) roll, 209 lbs (95 kg) per roll,
12 rolls per pallet

* Made to order, minimum volume required, extended production lead times.
Consult with Sika – Roofing representative for further information.

- **60 mil (1.5 mm) Membrane**

Bareback: 10 ft x 100 ft (3 m x 30 m) roll, 348 lbs (158 kg) per roll,
8 rolls per pallet
5 ft x 100 ft (1.5 m x 30 m) roll, 174 lbs (79 kg) per roll,
12 rolls per pallet

9 oz. Feltback: 10 ft x 100 ft (3 m x 30 m) roll, 401 lbs (182 kg) per roll,
9 rolls per pallet

3 oz. Feltback: 10 ft x 100 ft (3 m x 30 m) roll, 400 lbs (181 kg) per roll,
9 rolls per pallet (White Only)

STORAGE

STORAGE CONDITIONS

Store rolls on pallets and fully protected from the weather with clean canvas tarpaulins. Unvented polyethylene tarpaulins are not accepted due to the accumulation of moisture beneath the tarpaulin in certain weather conditions that may affect the ease of membrane weldability.

TECHNICAL DATA
TYPICAL PHYSICAL PROPERTIES*

Properties	ASTM Test Method	ASTM Type III D4434 Spec. Requirement	Typical Results	
Nominal Thickness, mil	D751	45	45	60
Thickness Over Scrim, mil	--	16	20	24
Reinforcing Material	--	--	Polyester	
Felt Weight, oz/sq yd (feltback membrane only)	--	--	--	3 or 9
Breaking Strength M.D. ¹ , lbf (N)	D751	200 (890)	230 (1023)	303 (1348)
Elongation at Break, % M. D. ¹ & % C.M.D. ¹	D751	15 & 15	20 & 20	20 & 20
Seam Strength, % of original ²	D751	75	Pass	Pass
Retention of Properties After Heat Aging	D3045	--	--	--
Tensile Strength, % of original	D751	90	Pass	Pass
Elongation, % of original	D751	90	Pass	Pass
Tearing Resistance, lbf (N)	D751	45 (200)	45 (200)	45 (200)
Low Temperature Bend, -40°F (-40°C)	D2136	Pass	Pass	Pass
Accelerated Weathering Test (Florescent Light UV exposure)	G154	5,000 Hours	10,000 Hours	10,000 Hours
Cracking (7x magnification)	--	None	None	None
Discoloration (by observation)	--	Negligible	Negligible	
Crazing (7x magnification)	--	None	None	None
Linear Dimensional Change, %	D1204	0.5 max.	0.31	0.24
Weight Change After Immersion in Water, %	D570	± 3.0 max.	2.9	2.5
Static Puncture Resistance, lbf (kg)	D5602	33 (15)	Pass	Pass
Dynamic Puncture Resistance, ft-lbf (J)	D5635	14.7 (20)	Pass	Pass
Recycled Content, membrane	--	--	9% Pre-consumer, 1% Post-consumer	
Recycled Content, felt	--	--	5% Pre-consumer	

*Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions, and curing conditions.

¹M.D. = Machine Direction, C.M.D. = Cross Machine Direction.

²Failure occurs through membrane rupture not seam failure.

EnergySmart Colors	INITIAL SOLAR REFLECTANCE ¹	3-YEAR SOLAR REFLECTANCE ¹	INITIAL THERMAL EMITTANCE ²	3-YEAR THERMAL EMITTANCE ²	INITIAL SOLAR REFLECTANCE INDEX	3-YEAR SOLAR REFLECTANCE INDEX
Sikaplan Fastened-45 EnergySmart White	0.83	0.71	0.89	0.89	104	87
Sikaplan Fastened-60 EnergySmart White	0.85	0.75	0.89	0.90	107	93
Sikaplan Fastened-60 EnergySmart Reflective Gray	0.73	0.65 ³	0.89	0.88 ³	90	78 ³
Sikaplan Fastened-60 EnergySmart Tan	0.72	0.65 ³	0.89	0.88 ³	88	78 ³

¹ Solar Reflectance testing according to ASTM C1549.

² Thermal Emittance testing according to ASTM C1371, Slide Method.

³ CRRC Rapid Ratings: These are interim laboratory-aged values that simulate weathered values. These values will be replaced with the measured three-year aged values upon completion of the weathering process. SRI values calculated using Rapid Ratings may change once the aged rating replaces the interim rating.

SYSTEM INFORMATION

APPLICATION INSTRUCTIONS

APPLICATION

Sikaplan Fastened EnergySmart Roof Membrane is installed on acceptable substrates and fastened to the roof deck using the approved attachment method. The membrane is heat-welded together by trained mechanics using hot-air welding equipment. Sikaplan Fastened EnergySmart Roof Membrane can be used for flashings on Sikaplan Fastened roof projects.

PRODUCT LIMITATIONS

LIMITATIONS

Sikaplan Fastened-60 3 oz. Feltback can only be used for recovers over an existing single-ply membrane.

AVAILABILITY

From Sika Corporation – Roofing Authorized Applicators for use within Sikaplan systems.

MAINTENANCE

Standard maintenance of Sikaplan systems should include regular inspection of flashings, drains, and termination sealants at least twice a year and after each storm.

WARRANTY

Upon successful completion of the installed roof by the Sika Authorized Applicator, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator.

LEGAL NOTES

All information provided by Sika Corporation ("Sika") concerning Sika products, including but not limited to, any recommendations and advice relating to the application and use of Sika products, is given in good faith based on Sika's current experience and knowledge of its products when properly stored, handled and applied under normal conditions in accordance with Sika's instructions. In practice, the differences in materials, substrates, storage and handling conditions, actual site conditions and other factors outside of Sika's control are such that Sika assumes no liability for the provision of such information, advice, recommendations or instructions related to its products, nor shall any legal relationship be created by or arise from the provision of such information, advice, recommendations or instructions related to its products. The user of the Sika product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with the full application of the product(s). Sika reserves the right to change the properties of its products without notice. All sales of Sika product(s) are subject to its current terms and conditions of sale which are available at usa.sarnafil.sika.com or by calling 800-451-2504.

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