BUILDING TRUST
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PRODUCT DATA SHEET

Sikaplan®-60 FR Feltback EnergySmart

PVC THERMOPLASTIC ROOF MEMBRANE

PRODUCT DESCRIPTION

Sikaplan®-60 FR Feltback EnergySmart Roof Membrane is a PVC thermoplastic membrane produced with a polyester scrim reinforcement and a fire resistant felt.

WHERE TO USE

Mechanically attached using various attachment components over combustible (wood) decks.

AREAS OF APPLICATION

- In-seam disc systems
- In-seam batten, double-weld systems
- New construction
- Reroofing

CHARACTERISTICS / ADVANTAGES

- Highly reflective
- Excellent tear strength resistance
- Factory applied lacquer coating to reduce dirt pick up
- Hot-air welded seams for long-term performance
- UL Class A fire rating direct to combustible deck

APPROVALS / CERTIFICATES

- Underwriters Laboratories
- Underwriters Laboratories of Canada
- ENERGY STAR®
- California Title 24
- LEED/Green Globes
- CSA-A123.21

PRODUCT INFORMATION

Composition / Manufacturing	Thermoplastic PVC membrane containing ultraviolet light stabilizers, flame retardant and polyester scrim reinforcement with a unique lacquer coating on the top surface.
Recycled content	9% Pre-consumer, 1% Post-consumer
Reinforcing Material	Polyester
Packaging	**1.5 mm (60 mil) Membrane** 3 m x 30 m (10 ft x 100 ft) roll, 176 kg (388 lbs) per roll, 9 rolls per pallet

Appearance / Colour	▪ Top: White and Reflective Grey ▪ Bottom: Grey	
Shelf Life	N/A	
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.	
Overall Thickness	60 mil (1.5 mm), nominal 45 mil	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Thickness Above Scrim	0.6 mm (24 mil) 0.4 mm (16 mil)	(ASTM D-7635) (ASTM Type III D-4434 Spec. Requirement)
Felt Weight	213 g/m² (9 oz/yd²)	

TECHNICAL INFORMATION

Resistance to Static Puncture	Pass 15 kg (33 lbf)	(ASTM D-5602) (ASTM Type III D-4434 Spec. Requirement)
Resistance to Dynamic Puncture	Pass 20 J (14.7 ft-lbf)	(ASTM D-5635) (ASTM Type III D-4434 Spec. Requirement)
Tensile Strength	1348 N (303 lbf) 890 N (200 lbf)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Elongation at Break	20 & 20% MD & CMD[1] 15 & 15% MD & CMD[1] [1] MD = Machine Direction, CMD = Cross Machine Direction	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Linear Dimensional Change	0.24% 0.5%	(ASTM D-1204) (ASTM Type III D-4434 Spec. Requirement)
Tear Strength	200 N (45 lbf) 200 N (45 lbf)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Seam Strength	Pass 75% of original[2] [2] Failure occurs through membrane rupture not seam failure.	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Low Temperature Flexibility	Pass Pass -40 °C (-40 °F)	(ASTM D-2136) (ASTM Type III D-4434 Spec. Requirement)
Retention of Properties after Heat Ageing	Tensile Strength, % of original: Pass Elongation, % of original: Pass Tensile Strength, % of original: 90 Elongation, % of original: 90	(ASTM D-3045) (ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Resistance to UV Exposure	10,000 hours 5,000 hours	(ASTM G-154) (ASTM Type III D-4434 Spec. Requirement)

Cracking (7x magnification)	None
Discolouration (by observation)	Negligible
Crazing (7x magnification)	None

Weight Change after Immersion in Water	2.5% ± 3.0%	(ASTM D-570) (ASTM Type III D-4434 Spec. Requirement)

Solar Reflectance

EnergySmart Colours	Initial Solar Reflectance[1]	3-Year Solar Reflectance[1]
EnergySmart White	0.85	0.75
EnergySmart Reflective Grey	0.73	0.66

[1] Solar Reflectance testing according to ASTM C-1549.

Thermal Emittance

EnergySmart Colours	Initial Thermal Emittance[1]	3-Year Thermal Emittance[1]
EnergySmart White	0.89	0.90
EnergySmart Reflective Grey	0.89	0.88

[1] Thermal Emittance testing according to ASTM C-1371, Slide Method.

Solar Reflectance Index

EnergySmart Colours	Initial Solar Reflectance Index[1]	3-Year Solar Reflectance Index[1]
EnergySmart White	107	93
EnergySmart Reflective Grey	90	80

[1] Solar Reflectance Index calculated according to ASTM E-1980.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

OTHER DOCUMENTS

Availability
Sikaplan®-60 FR Feltback EnergySmart is available directly from Sika Canada Authorized Applicators when used within a Sika® Sarnafil® Roofing or Waterproofing System.
Contact Sika Canada or visit our website at www.sika.ca for further information.

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

LIMITATIONS

- Ambient Air Temperature: -20 °C (-4 °F) min. / +60 °C (140 °F) max. during application.
- Substrate Temperature: -30 °C (-22 °F) min. / +60 °C (140 °F) max. during application.
- Not to be applied directly to polystyrene products.
- Sikaplan® membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

APPLICATION

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

MAINTENANCE

Standard maintenance of Sarnafil® and Sikaplan® systems should include regular inspections of flashings, drains and terminations sealants at least twice a year and after each storm.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

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