

PRODUCT DATA SHEET

Sikaplan® Fastened-60 EnergySmart

60 mil thick PVC thermoplastic membrane

PRODUCT DESCRIPTION

Sikaplan® Fastened-60 EnergySmart Roof Membrane is a PVC thermoplastic membrane produced with a polyester scrim reinforcement. Sikaplan Fastened-60 utilizes the Pro-Weld™ visual indicator to provide real-time feedback that the proper seam welding temperature and speed settings are being used during installation.

WHERE TO USE

Mechanically attached using various attachment components over approved substrates. It can also be used in adhered applications to approved substrates.

AREAS OF APPLICATION

- In-seam disc systems
- In-seam batten, double-weld systems
- RhinoBond® systems
- Adhered systems
- New construction and 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
- Pro-Weld™ visual welding temperature indicator¹

¹White membrane only

APPROVALS / CERTIFICATES

- 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
- 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	60 mil (1.5 mm) Membrane 10 ft x 100 ft (3 m x 30 m) roll, 343 lbs (156 kg) per roll, 8 rolls per pallet 5 ft x 100 ft (1.5 m x 30 m) roll, 172 lbs (78 kg) per roll, 12 rolls per pallet	
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. Refer to Technical Bulletin 24-02 for additional storage information for rolls utilizing the Pro-Weld visual welding temperature indicator.	
Appearance / Colour	<ul style="list-style-type: none">▪ Top: White, Reflective Gray, and Tan▪ Bottom: Gray	
Overall Thickness	60 mil (1.5 mm), nominal 45 mil	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Thickness Above Scrim	24 mil 16 mil	(ASTM D-7635) (ASTM Type III D-4434 Spec. Requirement)

TECHNICAL INFORMATION

Resistance to Static Puncture	Pass 33 lbf (15 kg)	(ASTM D-5602) (ASTM Type III D-4434 Spec. Requirement)
Resistance to Dynamic Puncture	Pass 14.7 ft-lbf (20 J)	(ASTM D-5635) (ASTM Type III D-4434 Spec. Requirement)
Tensile Strength	303 lbf (1348 N) 200 lbf (890 N)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Elongation at Break	20 & 20% MD & CMD ¹ 15 & 15% MD & CMD ¹	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
¹ MD = Machine Direction, CMD = Cross Machine Direction.		
Tear Strength	45 lbf (200 N) 45 lbf (200 N)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Seam Strength	Pass 75% of original ¹	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
¹ Failure occurs through membrane rupture not seam failure.		
Linear Dimensional Change	0.24% 0.5%	(ASTM D-1204) (ASTM Type III D-4434 Spec. Requirement)

Solar Reflectance

EnergySmart Colors	Initial Solar Reflectance ¹	3-Year Solar Reflectance ¹
EnergySmart White	0.85	0.75
EnergySmart Reflective Gray	0.73	0.66
EnergySmart Tan	0.72	0.65

¹ Solar Reflectance testing according to ASTM C-1549.

Solar Reflectance Index

EnergySmart Colors	Initial Solar Reflectance Index ¹	3-Year Solar Reflectance Index ¹
EnergySmart White	106	93
EnergySmart Reflective Gray	89	80
EnergySmart Tan	89	78

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

Thermal Emittance

EnergySmart Colors	Initial Thermal Emittance ¹	3-Year Thermal Emittance ¹
EnergySmart White	0.89	0.90
EnergySmart Reflective Gray	0.89	0.88
EnergySmart Tan	0.89	0.88

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

Low Temperature Flexibility

Pass	(ASTM D-2136)
Pass -40°F (-40°C)	(ASTM Type III D-4434 Spec. Requirement)

Weight Change after Immersion in Water

2.5%	(ASTM D-570)
± 3.0%	(ASTM Type III D-4434 Spec. Requirement)

Resistance to UV Exposure

Pass	(ASTM G-154)
5,000 hours	(ASTM Type III D-4434 Spec. Requirement)
Cracking (7x magnification)	None
Crazing (7x magnification)	None

Retention of Properties after Heat Ageing

Breaking Strength, % of original: Pass	(ASTM D-751)
Elongation, % of original: Pass	(ASTM D-751)
Breaking Strength, % of original: 90	(ASTM Type III D-4434 Spec. Requirement)
Elongation, % of original: 90	

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.

FURTHER INFORMATION

Availability

Sikaplan® Fastened-60 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

The Ambient Air Temperature -20°C (-4°F) min. / +60°C (140°F) max. during application.

The Substrate Temperature -30°C (-22°F) min. / +60°C (140°F) max. during application.

Not to be applied directly to polystyrene products. Sarnafil/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 is installed on acceptable substrates and fastened to the roof deck using the approved attachment method. In adhered applications, the membrane is unrolled into approved Sikaplan or Sarnacol adhesive in accordance with Sika's technical requirements and then pressed into place with a minimum 75 lb (34 kg) steel roller. The membrane is heat-welded together by trained mechanics using hot-air welding equipment. Refer to Technical Bulletin 24-02 for Pro-Weld visual welding temperature indicator application information. Sikaplan Fastened can be used for flashings on Sikaplan roof projects.

MAINTENANCE

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

Sika Canada Inc.

Head Office
601, avenue Delmar
Pointe-Claire, Quebec
H9R 4A9
1-800-933-SIKA
www.sika.ca

Other locations

Boisbriand (Quebec)
Brantford; Cambridge;
Sudbury; Toronto (Ontario)
Edmonton (Alberta)
Surrey (British Columbia)

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

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

SikaplanFastened-60EnergySmart-en-CA-(05-2024)-7-1.pdf

Product Data Sheet

Sikaplan® Fastened-60 EnergySmart
May 2024, Version 07.01
020905011050153002

