



## PRODUCT DATA SHEET

# Sikaplan® Fastened-60 Feltback EnergySmart

1.5 mm (60 mil) thick PVC thermoplastic membrane with felt backing

### PRODUCT DESCRIPTION

Sikaplan® Fastened-60 Feltback EnergySmart EnergySmart Roof Membrane is a PVC thermoplastic membrane produced with a polyester scrim reinforcement and a 305 gram (9 oz.) or 101 gram (3 oz.) recycled felt backing.

### WHERE TO USE

Mechanically attached using various attachment components over approved substrates.

### AREAS OF APPLICATION

- In-seam disc systems
- In-seam batten, double-weld 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
- Cost effective option for single-ply recovers (101 gram)
- Felt backing eliminates the need to install a overboard (101 gram)

### APPROVALS / CERTIFICATES

- FM Global
- Underwriters Laboratories
- Underwriters Laboratories of Canada
- ICC Code Compliance – ESR 1157
- Miami-Dade County
- Florida Building Code
- ENERGY STAR®
- California Title 24
- LEED/Green Globes
- CSA-A123.21

## PRODUCT INFORMATION

<b>Composition / Manufacturing</b>	Thermoplastic PVC membrane containing ultraviolet light stabilizers, flame retardant and polyester scrim reinforcement with a unique lacquer coating on the top surface.	
<b>Recycled content</b>	9% Pre-consumer, 1% Post-consumer	
<b>Reinforcing Material</b>	Polyester	
<b>Packaging</b>	<b>1.5 mm (60 mil) Membrane 101 gram (3oz) Feltback:</b> 3 m x 30 m (10 ft x 100 ft) feltback roll, 168 kg (371 lbs) per roll, 9 rolls per pallet  <b>1.5 mm (60 mil) Membrane 305 gram (9oz) Feltback:</b> 3 m x 30 m (10 ft x 100 ft) feltback roll, 176 kg (388 lbs) per roll, 9 rolls per pallet	
<b>Shelf Life</b>	N/A	
<b>Storage Conditions</b>	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.	
<b>Appearance / Colour</b>	<ul style="list-style-type: none"><li>▪ Top: White*, Reflective Grey, and Tan</li><li>▪ Bottom: Grey</li></ul> * 101 gram (3 oz) feltback is only available in white	
<b>Overall Thickness</b>	1.5 mm (60 mil), nominal 1.14 mm (45 mil)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
<b>Thickness Above Scrim</b>	60 mm (24 mil) 40 mm (16 mil)	(ASTM D-7635) (ASTM Type III D-4434 Spec. Requirement)
<b>Felt Weight</b>	101 g/m <sup>2</sup> (3 oz/yd <sup>2</sup> ) 305 g/m <sup>2</sup> (9 oz/yd <sup>2</sup> )	

## TECHNICAL INFORMATION

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

**Linear Dimensional Change** 0.24% (ASTM D-1204)  
0.5% (ASTM Type III D-4434 Spec. Requirement)

<b>Solar Reflectance</b>	<b>EnergySmart Colors</b>	<b>Initial Solar Reflectance<sup>1</sup></b>	<b>3-Year Solar Reflectance<sup>1</sup></b>
	EnergySmart White		0.85
EnergySmart Reflective Gray <sup>2</sup>		0.73	0.66
EnergySmart Tan <sup>2</sup>		0.72	0.65

<sup>1</sup> Solar Reflectance testing according to ASTM C-1549.  
<sup>2</sup> 9 oz. Feltback only

<b>Solar Reflectance Index</b>	<b>EnergySmart Colors</b>	<b>Initial Solar Reflectance Index<sup>1</sup></b>	<b>3-Year Solar Reflectance Index<sup>1</sup></b>
	EnergySmart White		107
EnergySmart Reflective Gray <sup>2</sup>		90	80
EnergySmart Tan <sup>2</sup>		88	78

<sup>1</sup> Solar Reflectance Index calculated according to ASTM E-1980.  
<sup>2</sup> 9 oz. Feltback only

<b>Thermal Emittance</b>	<b>EnergySmart Colors</b>	<b>Initial Thermal Emittance<sup>1</sup></b>	<b>3-Year Thermal Emittance<sup>1</sup></b>
	EnergySmart White		0.89
EnergySmart Reflective Gray <sup>2</sup>		0.89	0.88
EnergySmart Tan <sup>2</sup>		0.89	0.88

<sup>1</sup> Thermal Emittance testing according to ASTM C-1371, Slide Method.  
<sup>2</sup> 9 oz. Feltback only

**Low Temperature Flexibility** Pass (ASTM D-2136)  
Pass -40°C (-40°F) (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** 10,000 hours (ASTM G-154)  
5,000 hours (ASTM Type III D-4434 Spec. Requirement)

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

**Retention of Properties after Heat Ageing** Tensile Strength, % of original: Pass (ASTM D-3045)  
Elongation, % of original: Pass (ASTM D-751)  
Tensile 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.

## OTHER DOCUMENTS

### AVAILABILITY

Sikaplan® Fastened-60 Feltback EnergySmart is available directly from Sika Canada Authorized Applicators when used within a Sika® Sarnafil® Roofing System. Contact Sika Canada or visit our website at [www.sika.ca](http://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-60 Feltback EnergySmart 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.

## 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.

## 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](http://www.sika.ca)

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### **Other locations**

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

### **Product Data Sheet**

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