

PRODUCT DATA SHEET

Sarnafil® S 327-48 Feltback EnergySmart

PVC THERMOPLASTIC MEMBRANE

PRODUCT DESCRIPTION

Sarnafil® S 327-48 Feltback EnergySmart is a PVC thermoplastic roof membrane produced with an integral polyester reinforcement for high strength, highly reflective, designed with heat-weldable seams and a unique lacquer coating applied to the top of the membrane to reduce dirt pick up.

WHERE TO USE

Sarnafil® S 327-48 Feltback EnergySmart is used in mechanically-attached applications with various fastening methods, over various substrates.

AREAS OF APPLICATION

- New roofs
- Reroofs
- Recovers

CHARACTERISTICS / ADVANTAGES



- Highly reflective
- Excellent tear strength resistance
- Factory-applied lacquer coated to reduce dirt pick up
- Hot-air welded seams for long-term performance
- Proven membrane performance
- Superior fire resistance

APPROVALS / CERTIFICATES

- FM Global
- Underwriters Laboratories
- Underwriters Laboratories of Canada
- ICC Code Compliance – ESR 1157
- Miami-Dade County
- Florida Building Code
- NSF/ANSI 347: Platinum Certified
- ENERGY STAR®
- California Title 24
- LEED / Green Globes
- CGSB-37.54-95. Type 4/Class B

PRODUCT INFORMATION

Composition / Manufacturing

High-quality, 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	48 mil (1.2 mm) Membrane* 3 m x 30 m (10 ft x 100 ft) roll, 165 kg (363 lb) per roll, 9 rolls per pallet <small>* Made to order, minimum volume required, extended production lead times. Consult with Sika – Roofing representative for further information.</small>	
Appearance / Colour	<ul style="list-style-type: none"> ▪ Top: White, Tan, 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	48 mil (minimum thickness) 45 mil	(ASTM D751) (ASTM Type III D4434 Spec. Requirement)
Thickness Above Scrim	21 mil 16 mil	(ASTM D7635) (ASTM Type III D4434 Spec. Requirement)
Felt Weight	9 oz/yd ²	

TECHNICAL INFORMATION

Resistance to Static Puncture	Pass 15 kg (33 lbf)	(ASTM D5602) (ASTM Type III D4434 Spec. Requirement)
Resistance to Dynamic Puncture	Pass 20 J (14.7 ft-lbf)	(ASTM D5635) (ASTM Type III D4434 Spec. Requirement)
Tensile Strength	1312 N (295 lbf) 890 N (200 lbf)	(ASTM D751) (ASTM Type III D4434 Spec. Requirement)
Elongation at Break	27.5 % & 28.5 % MD & CMD ¹ 15 % & 15 % MD & CMD ¹ <small>¹ MD = Machine Direction, CMD = Cross Machine Direction.</small>	(ASTM D751) (ASTM Type III D4434 Spec. Requirement)
Linear Dimensional Change	-0.10 % 0.5 %	(ASTM D1204) (ASTM Type III D4434 Spec. Requirement)
Tear Strength	209 N (47 lbf) 200 N (45 lbf)	(ASTM D751) (ASTM Type III D4434 Spec. Requirement)
Seam Strength	Pass 75 % of original ² <small>² Failure occurs through membrane rupture not seam failure.</small>	(ASTM D751) (ASTM Type III D4434 Spec. Requirement)
Low Temperature Flexibility	Pass Pass -40 °C (-40 °F)	(ASTM D2136) (ASTM Type III D4434 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 D3045) (ASTM D751) (ASTM Type III D4434 Spec. Requirement)

Resistance to UV Exposure	10,000 hours	(ASTM G154)
	5,000 hours	(ASTM Type III D4434 Spec. Requirement)
	Cracking (7x magnification)	None
	Discoloration (by observation)	Negligible
	Cracking (7x magnification)	None

Weight Change after Immersion in Water	2.2 %	(ASTM D570)
	± 3.0 %	(ASTM Type III D4434 Spec. Requirement)

Solar Reflectance	EnergySmart Colors	Initial Solar Reflectance¹	3-Year Solar Reflectance¹
		EnergySmart White ²	0.84
	EnergySmart Tan ²	0.73	0.65
	EnergySmart Reflective Gray ²	0.73	0.66

¹ Solar Reflectance testing according to ASTM C1549.

² Meets ENERGY STAR®, LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

Thermal Emittance	EnergySmart Colors	Initial Thermal Emittance¹	3-Year Thermal Emittance¹
		EnergySmart White ²	0.86
	EnergySmart Tan ²	0.85	0.86
	EnergySmart Reflective Gray ²	0.89	0.88

¹ Thermal Emittance testing according to ASTM C1371, Slide Method.

² Meets ENERGY STAR®, LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

Solar Reflectance Index	EnergySmart Colors	Initial Solar Reflectance Index¹	3-Year Solar Reflectance Index¹
		EnergySmart White ²	105
	EnergySmart Tan ²	89	78
	EnergySmart Reflective Gray ²	90	80

¹ Solar Reflectance Index calculated according to ASTM E1980.

² Meets ENERGY STAR®, LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

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

Sarnafil® S 327-48 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 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.

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.
- Sarnafil membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials.

ENVIRONMENT, HEALTH & SAFETY

This product is a manufactured article that does not require Safety Data Sheets to be marketed, transported or applied at the jobsite, according to the Hazardous Product Act - Section 2. Based on our current knowledge, this product is not classified as dangerous and does not contain any hazardous materials. Always wear personal protective equipment (including safety goggles and gloves) to manipulate and install Sika® products.

APPLICATION INSTRUCTIONS

APPLICATION

Sarnafil® S 327-48 Feltback EnergySmart is rolled out after proper preparation of the approved substrate and fastened to the roof deck with appropriate mechanically-attached system with Sarnafasteners in accordance with Sika's technical requirements. Sarnafil® S 327-48 Feltback EnergySmart seams are heat-welded together by trained operators using hot-air welding equipment. Different mechanically-attached systems require different application methods. Please consult Sika's Specifications or Applicator Handbook for detailed installation procedures.

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MAINTENANCE

As a prudent preventative measure, Sika Canada recommends that the Owner or that the Owner's designated representative inspect the installed roof system for damage, flashings, plugged drains, weathered sealants, etc. 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

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Product Data Sheet

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