BUILDING TRUST
CONSTRUIRE LA CONFIANCE

PRODUCT DATA SHEET

Sarnafil® S 327-80 EnergySmart

80 mil thick PVC thermoplastic membrane

PRODUCT DESCRIPTION

Sarnafil® S 327-80 EnergySmart Roof Membrane is a PVC thermoplastic membrane produced with an integral polyester reinforcement for high strength, is highly reflective, with heat-weldable seams, and a unique lacquer coating applied to the top of the membrane to reduce dirt pick up.

WHERE TO USE

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
- California Title 24
- LEED / Green Globes
- CGSB-37.54-95. Type 4/Class B
- CSA-A123.21

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	**80 mil (2.0 mm) Membrane** 10 ft x 100 ft (3 m x 30 m) roll, 520 lbs (236 kg) per roll 4 rolls per pallet 5 ft x 100 ft (1.5 m x 30 m) roll, 260 lbs (118 kg) per roll 9 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.	
Appearance / Colour	▪ Top: White, Tan, and Reflective Gray ▪ Bottom: Gray	
Overall Thickness	80 mil (2.0 mm), minimum thickness 45 mil	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Thickness Above Scrim	40 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	325 lbf (1445 N) 200 lbf (890 N)	(ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)
Elongation at Break	29.5 & 30.5% 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)
Tear Strength	49 lbf (218 N) 45 lbf (200 N)	(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)
Linear Dimensional Change	-0.14% 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[2]	0.84	0.76
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 LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

Solar Reflectance Index

EnergySmart Colors	Initial Solar Reflectance Index[1]	3-Year Solar Reflectance Index[1]
EnergySmart White[2]	105	93
EnergySmart Tan[2]	89	78
EnergySmart Reflective Gray[2]	90	80

[1] Solar Reflectance Index calculated according to ASTM E1980.
[2] Meets LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

Thermal Emittance

EnergySmart Colors	Initial Thermal Emittance[1]	3-Year Thermal Emittance[1]
EnergySmart White[2]	0.86	0.85
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 LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications.

Low Temperature Flexibility	Pass Pass -40°F (-40°C)	(ASTM D-2136) (ASTM Type III D-4434 Spec. Requirement)
Weight Change after Immersion in Water	1.8% ± 3.0%	(ASTM D-570) (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 Crazing (7x magnification): None	
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-751) (ASTM D-751) (ASTM Type III D-4434 Spec. Requirement)

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

Sarnafil® S 327-80 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

Sarnafil S 327 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 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.

MAINTENANCE

Standard maintenance of Sarnafil and Sikaplan systems should include regular inspections of flashings, drains, and termination 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

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