

PRODUCT DATA SHEET

Sarnafil® G 410-60 SA Feltback EnergySmart

60 mil thick PVC thermoplastic feltback membrane with adhesive backing

PRODUCT DESCRIPTION

Sarnafil® G 410-60 SA Feltback EnergySmart Roof Membrane is a PVC thermoplastic feltback membrane with a factory applied pressure-sensitive adhesive backing, 3" (76 mm) selvage edge and siliconized polyethylene release liner. It is produced with an integral fiberglass mat reinforcement for dimensional stability, is highly reflective, with heat-weldable seams, and a unique lacquer coating applied to the top of the membrane to reduce dirt pick up.

USES

Used in adhered applications for new roofs, reroofs, and all systems for flashings.

AREAS OF APPLICATION

Sika Approved Insulations and Cover Boards

- Polyisocyanurate Insulations
- High Density Polyisocyanurate Roof Boards
- Gypsum Boards with Primed Facer
- Plywood

CHARACTERISTICS / ADVANTAGES



- Highly reflective
- VOC free and odor free
- Factory applied adhesive to reduce on-site installation labor and ensure uniform adhesive application
- Low temperature application limit of 20°F (-7°C)
- Guaranteed membrane thickness
- Excellent dimensional stability
- Factory applied lacquer coating to reduce dirt pick up
- Proven membrane performance
- Hot-air welded seams for long-term performance
- Superior fire resistance

APPROVALS / STANDARDS

- 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

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April 2024, Version 01.01

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PRODUCT INFORMATION

Chemical Base	High-quality PVC feltback membrane containing ultraviolet light stabilizers, flame retardant, fiberglass reinforcement, with a unique lacquer coating on the top surface and pressure-sensitive adhesive with a removable siliconized polyethylene release liner on the back surface.
Reinforcing Material	Fiberglass
Packaging	60 mil (1.5 mm) Membrane 6.56 ft x 65.6 ft (2 m x 20 m) roll, 204 lbs (92.6 kg) per roll, 10 rolls per pallet
Shelf Life	Sarnafil G 410-60 SA Feltback EnergySmart has a shelf life of up to 12 months. An extension may be offered, when properly stored between 60°F (16°C) and 80°F (27°C), and out of direct sunlight upon technical review.
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 / Color	<ul style="list-style-type: none">▪ Top: White▪ Bottom: Gray▪ Pressure Sensitive Adhesive: Clear Currently available in white only.
Overall Thickness	60 mil (1.5 mm), minimum thickness (ASTM D-751) 45 mil (ASTM Type II D-4434 Spec. Requirement)
Thickness Above Scrim	27 mil (ASTM D-7635) 16 mil (ASTM Type II D-4434 Spec. Requirement)
Felt Weight	9 oz/yd ²

TECHNICAL INFORMATION

Resistance to Static Puncture	Pass (ASTM D-5602) 33 lbf (15 kg) (ASTM Type II D-4434 Spec. Requirement)
Resistance to Dynamic Puncture	Pass (ASTM D-5635) 7.3 ft-lbf (10 J) (ASTM Type II D-4434 Spec. Requirement)
Tensile Strength	80 lbf/in (356 N) (ASTM D-751) 55 lbf/in (245 N) (ASTM Type II D-4434 Spec. Requirement)
Elongation at Break	250 & 220% MD & CMD ¹ (ASTM D-751) 250 & 220% MD & CMD ¹ (ASTM Type II D-4434 Spec. Requirement) ¹ MD= Machine Direction, CMD= Cross Machine Direction
Tear Strength	17.5 lbf (78 N) (ASTM D-1004) 10 lbf (45 N) (ASTM Type II D-4434 Spec. Requirement)
Seam Strength	Pass (ASTM D-751) 75% of original ¹ (ASTM Type II D-4434 Spec. Requirement) ¹ Failure occurs through membrane rupture not seam failure
Linear Dimensional Change	-0.02% (ASTM D-1204) 0.1% (ASTM Type II D-4434 Spec. Requirement)

Solar Reflectance

EnergySmart Colors	Initial Solar Reflectance ¹	3-Year Solar Reflectance ¹
EnergySmart White ²	0.85	0.74
EnergySmart Tan ²	0.73	0.65
EnergySmart Reflective Gray ²	0.73	0.66
EnergySmart Patina Green ³	0.55	0.46

¹ Solar Reflectance testing according to ASTM C-1549² Meets LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications³ Meets LEED, Green Globes, and California's Title 24 criteria for Steep Slope applications**Solar Reflectance Index**

EnergySmart Colors	Initial Solar Reflectance Index ¹	3-Year Solar Reflectance Index ¹
EnergySmart White ²	107	90
EnergySmart Tan ²	89	78
EnergySmart Reflective Gray ²	90	80
EnergySmart Patina Green ³	64	51

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.³ Meets LEED, Green Globes, and California's Title 24 criteria for Steep Slope applications.**Thermal Emittance**

EnergySmart Colors	Initial Thermal Emittance ¹	3-Year Thermal Emittance ¹
EnergySmart White ²	0.86	0.84
EnergySmart Tan ²	0.85	0.86
EnergySmart Reflective Gray ²	0.89	0.88
EnergySmart Patina Green ³	0.86	0.85

¹ Thermal Emittance testing according to ASTM C1371, Slide Method² Meets LEED, Green Globes, and California's Title 24 criteria for Low and Steep Slope applications³ Meets LEED, Green Globes, and California's Title 24 criteria for Steep Slope applications**Low Temperature Bend**

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

Weight Change after Immersion in Water

1.9%	(ASTM D-570)
± 3.0%	(ASTM Type II D-4434 Spec. Requirement)

UV Exposure

Pass	(ASTM G-154)
5,000 hours	(ASTM Type II 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 II D-4434 Spec. Requirement)

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BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

AVAILABILITY/WARRANTY

AVAILABILITY

From Sika Corporation – Roofing Authorized Applicators for use within Sarnafil or Sikaplan systems.

WARRANTY

Upon successful completion of the installed roof by the Sika Authorized Applicator in compliance with Sika requirements, Sika Corporation will provide a warranty to the Building Owner via the Sika Authorized Applicator

LIMITATIONS

- The ambient and substrate temperature must be 20°F (-7°C) or above during application.
- Not to be applied directly to concrete decks, lightweight insulated concrete decks, gypsum decks or polystyrene products.
- Sarnafil membranes are incompatible with asphalt, coal tar, heavy oils, roofing cements, creosote and some preservative materials.
- A static electric charge may develop when removing the release liner from the pressure-sensitive adhesive on the back of the membrane. Care should be used when removing and handling the release liner to avoid ignition. Lids must be closed on any flammable products and a fire extinguisher should be readily available.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION

Sarnafil G 410-60 SA Feltback EnergySmart is installed after proper preparation of the approved substrate. The membrane is unrolled and positioned in place with the selvage edge lapping the adjacent roll to allow for the 3" (76 mm) side lap. Fold back half of the sheet onto itself in the long direction and carefully cut the release liner without damaging the membrane. Peel back 3" - 5" (76 mm - 127 mm) of the release liner and press firmly onto the substrate. Weight may be necessary on the membrane when first starting. Continue removing the release liner from the membrane in a smooth, wrinkle-free manner while maintaining the 3" (76 mm) side lap. Immediately roll the membrane with a minimum 75 lb (34 kg) steel roller. Remove the remaining release liner from the other half of the membrane using the above process and immediately roll the membrane with the steel roller. Sarnafil G 410-60 SA Feltback EnergySmart side lap seams are heat-welded together by trained operators using hot-air welding equipment. End laps and all cut edges are butted together and an 8" (203 mm) Sarnafil G 410 coverstrip is hot-air welded over the butt and cut edge joints.

MAINTENANCE

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

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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