

Product Data Sheet

Edition: 12/2008
Version no.: 0007

Sarnafil G410 Feltback EnergySmart Roof® Membrane

**Overview:**

The Sarnafil G410 EnergySmart Roof® membrane by Sika Sarnafil is the first and only commercial single-ply membrane to be labeled under the Environmental Protection Agency's ENERGY STAR® program that can demonstrate more than 40 years of formulation consistency and history. The G410 Feltback (FB) EnergySmart Roof membrane is a heat-weldable membrane formulated for direct exposure to the weather and is produced with an integral fiberglass mat reinforcement for dimensional stability and a felt backing. The G410 FB EnergySmart Roof membrane is used within the Adhered system on certain substrates. G410 FB EnergySmart Roof membrane is produced in a standard width 10 ft. (3 meters) 10G410 FB.

Composition:

The G410 FB EnergySmart Roof membrane is a high-quality product containing ultra-violet light stabilizers, flame retardant, and reinforcement. The G410 FB EnergySmart Roof membrane has a unique lacquer coating applied to the top of the membrane to minimize staining from airborne dirt and pollutants. The standard color of the weathering surface of the G410 FB EnergySmart Roof membrane is bright white.

Features:

The manufacturing process causes the G410 FB EnergySmart Roof membrane to have no built-in stress at time of production and to have a fully-encapsulated reinforcement with no risk of delamination. The G410 FB EnergySmart Roof membrane can be produced in variety of custom colors to complement unique buildings. The G410 FB EnergySmart Roof membrane is available in the following thicknesses: 48 mil (1.2 mm), 60 mil (1.5 mm), 72 mil (1.8 mm), and 80 mil (2.0 mm). The feltbacking promotes adhesion to a variety of substrates and it provides a built-in cushion layer.

Packaging:

The G410 FB EnergySmart Roof membrane is wrapped in a protective film and strapped to a wood pallet. Individual rolls weight between 265 - 375 lbs.

Installation:

The G410 FB EnergySmart Roof membrane is installed by a Sika Sarnafil Authorized Applicator. After proper preparation of the substrate, the G410 FB EnergySmart Roof membrane is unrolled into Sarnacol adhesive in accordance with Sika Sarnafil's Technical requirements and then pressed into place with a water filled, foam-covered lawn roller. The G410 FB EnergySmart Roof membrane is then heat-welded together by trained operators using Sika Sarnafil's hot-air welding equipment.

Availability:	The G410 FB EnergySmart Roof membrane is available directly from Sika Sarnafil Authorized Applicators. Contact your Sika Sarnafil Regional Office or visit our website for further information.
Warranty:	Upon successful completion of the installed roof by the Sika Sarnafil Authorized Applicator, Sika Sarnafil can provide a Warranty to the Building Owner via the Authorized Applicator.
Maintenance:	The G410 FB EnergySmart Roof membrane requires no maintenance. As a prudent preventative measure, Sika Sarnafil recommends that the Owner or the Owner's designated representative inspect the installed roof system for damage, plugged drains, weathered sealants, etc. at least twice a year and after each storm.
Technical:	Sika Sarnafil provides technical support. Technical staff is available to advise Applicators as to the correct installation method of the G410 FB EnergySmart Roof membrane.
Technical Data (as manufactured):	The typical initial reflectivity, emissivity and solar reflective index figures for the Sarnafil G410 EnergySmart Roof membrane were measured by Lawrence Berkley National Laboratory.

Parameters	ASTM Test Method	ASTM D-4434 Spec. Requirement	Typical Physical Properties w/o Felt
Reinforcing Material	--	--	Fiberglass
Overall Thickness(1), Thickness Above Scrim	D638	0.045 (1.14)	(see note 1) 0.023 (avg.)
Tensile Strength, min., psi (MPa)	D638	1500 (10.4)	1600 (11.1)
Elongation at Break, min.	D638		
Machine Direction		250%	250%
Cross Direction		220%	220%
Seam Strength(2), min., (% of tensile strength)	D638	75	80
Retention of Properties After Heat Aging	D3045	--	--
Tensile Strength, min., (% of original)	D638	90	95
Elongation, min., (% of original)	D638	90	90
Tearing Resistance, min., lbf (N)	D1004	10 (45.0)	14 (63.0)
Low Temperature Bend, -40 °F (-40 °C)	D2136	Pass	Pass
Accelerated Weathering Test (Florescent Light, UV exposure)	G154	5,000 Hours	10,000 Hours
Cracking (7x magnification)	--	None	None
Discoloration (by observation)	--	Negligible	Negligible
Crazing (7x magnification)	--	None	None
Linear Dimensional Change	D1204	0.10% max.	0.02%
Weight Change After Immersion in Water	D570	± 3.0% max.	2.5% (w/o felt)
Static Puncture Resistance, 33 lbf (15 kg)	D5602	Pass	Pass
Dynamic Puncture Resistance, 7.3 ft-lbf (10 J)	D5635	Pass	Pass
Initial Solar Reflectance	E903	--	0.83
Emissivity	E408, C1371, Other	--	0.90
Solar Reflective Index (SRI)	E1980	--	104
Recycled Content (10' sheet only)		Up to 12% Pre-Consumer / Up to 1% Post Consumer	



Properties are without felt backing. As an Energy Star® Partner, Sika Sarnafil Inc. has determined that this product meets the ENERGY STAR® guidelines for energy efficiency on both low-slope and steep-slope construction. (1)Typical Physical Properties data is applicable for 0.048 in. (1.2 mm) membrane thickness and greater. (2)Failure occurs through membrane rupture not seam failure.



Corporate Office
Sika Sarnafil
A Division of Sika Corporation
100 Dan Road
Canton, MA 02021

Tel.: (781) 828-5400
1-800-451-2504

Fax: (781) 828-5365

Web: www.sikacorp.com

Email: webmaster.sarnafil@us.sika.com

Canada Office
Sika Sarnafil
A Business Unit of Sika Canada
6820 Davand Drive
Mississauga, ON L5T 1J5

Tel.: (905) 670-2222
1-800-268-0479

Fax: (905) 670-5278

Web: www.sika.ca

Disclaimer: The information, and, in particular, the recommendation relating to the application and end-use of Sika Sarnafil products, are given in good faith based on Sika Sarnafil's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika Sarnafil recommendations. In practice, the differences in materials, substrates and actual site conditions are such that **no warranty in respect of merchantability of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, may be inferred from this information.** The user of the product must determine the product's suitability for the intended application and purpose. Sika Sarnafil reserves the right to change the properties of its products. 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.