

**Product Data Sheet**

Edition: 01/2012

Version no.: 0002



# Sarnafil® G410 EnergySmart Roof® Membrane

  48     60     72     80     Feltback  

<b>Overview:</b>	<p>The G410 EnergySmart Roof membrane is a heat-weldable membrane produced with an integral fiberglass mat reinforcement for excellent dimensional stability, for use in a Sika Sarnafil Adhered System.</p> <p>Sika Sarnafil's Energy Star qualified EnergySmart Roof color family consists of White, Tan, Light Gray, and Patina Green.</p>
<b>Composition:</b>	<p>The G410 EnergySmart Roof membrane is a high-quality, thermoplastic PVC membrane with a fiberglass reinforcement. The G410 roof membrane has a unique lacquer coating applied to the top of the membrane to reduce dirt pick up.</p>
<b>Features and Benefits:</b>	<ul style="list-style-type: none"><li>• Excellent dimensional stability</li><li>• Meets EnergyStar/Title 24 Requirements for Cool Roofing (see pg. 2)</li><li>• Meets LEED/Green Globe Requirements for Cool Roofing (see pg. 2)</li><li>• Recycled content (see pg. 2)</li><li>• Lacquer coated to reduce dirt pick up</li><li>• Hot-air welded seams for long-term performance</li><li>• Proven membrane performance</li></ul>
<b>Codes and Approvals:</b>	<p>Sika Sarnafil's Adhered Systems using G410 PVC membranes are classified by Underwriters Laboratories, Inc., Underwriters Laboratories of Canada, FM Global, Miami-Dade and Florida Building Code. Sika Sarnafil membranes also meet the material requirements of the International building code. For more information, please visit the "technical downloads" section of our website.</p>
<b>Packaging:</b>	<p>The G410 roof membrane rolls are wrapped in a protective film and strapped to a wood pallet. EnergySmart white, tan and light gray are available as 10 ft. (3 meters) wide. EnergySmart patina green is available as 6.5 ft. (2 meters) wide. 6.5 ft. rolls weigh between 161 - 195 lbs and the 10 ft. rolls weight between 265-375lbs. Weight is dependent on thickness of membrane and/or feltbacking.</p>
<b>Installation:</b>	<p>G410 is installed by a Sika Sarnafil Authorized Applicator. After proper preparation of the substrate, G410 is unrolled into Sarnacol adhesive in accordance with Sika Sarnafil's Technical requirements and then pressed into place with a minimum 100lb linoleum roller. The G410 is then heat-welded together by trained operators using Sika Sarnafil's hot-air welding equipment. Different Sarnacol adhesives require different application methods. Please consult Sika Sarnafil's Applicator Handbook for detailed installation procedures.</p>
<b>Availability:</b>	<p>The G410 roof membrane is available directly from Sika Sarnafil Authorized Applicators. Contact your Sika Sarnafil Regional Office or visit our website for further information.</p>
<b>Warranty:</b>	<p>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.</p>
<b>Maintenance:</b>	<p>The G410 roof membrane requires no maintenance. As a prudent preventative measure, Sika Sarnafil recommends that the Owner or that 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.</p>

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**Technical Support:** Sika Sarnafil provides technical support. Please contact your local technical representative or technical manager if you need assistance.

**Technical Data (as manufactured):**

**Parameters**

	ASTM Test Method	ASTM Type II D-4434 Spec. Requirement	Typical Physical Properties			
			48 Fiberglass	60 Fiberglass	72 Fiberglass	80 Fiberglass
Reinforcing Material	--	--				
Overall Thickness, mil	D638	45	48	60	72	80
Thickness Above Scrim, mil	--	16	24	30	36	40
Felt Weight oz/yd <sup>2</sup>	--	--	9	9	9	9
Tensile Strength, min., psi, (Mpa)	D638					
Machine Direction		1500psi (10.4)	1500	1575	1625	1675
Cross Direction		1500psi (10.4)	1500	1550	1575	1625
Elongation at Break, min.	D638					
Machine Direction %		250	250	250	250	250
Cross Direction %		220	220	220	220	220
Seam Strength, min., (% of original)*	D638	75	Pass	Pass	Pass	Pass
Retention of Properties After Heat Aging	D3045					
Tensile Strength, min., (% of original)	D638	90	Pass	Pass	Pass	Pass
Elongation, min., (% of original)	D638	90	Pass	Pass	Pass	Pass
Tearing Resistance (M.D.), min., lbf (N)	D1004	10 (45.0)	15	17.5	20.5	22
Low Temperature Bend, -40 °F (-40 °C)	D2136	Pass	Pass	Pass	Pass	Pass
Accelerated Weathering Test (Florescent Light, UV exposure)	G154	5,000 Hours	10,000 Hours	10,000 Hours	10,000 Hours	10,000 Hours
Cracking (7x magnification)		None	None	None	None	None
Discoloration (by observation)		Negligible	Negligible	Negligible	Negligible	Negligible
Crazing (7x magnification)		None	None	None	None	None
Linear Dimensional Change (C.D.), %	D1204	0.10% max.	-0.02	-0.02	-0.01	-0.01
Weight Change After Immersion in Water, %	D570	± 3.0% max.	2.4	1.9	1.8	1.7
Static Puncture Resistance, 33 lbf (15 kg)	D5602	Pass	Pass	Pass	Pass	Pass
Dynamic Puncture Resistance, 7.3 ft-lbf (10 J)	D5635	Pass	Pass	Pass	Pass	Pass
Recycled Content (10' & 5' sheet only)	9% Pre-Consumer / 1% Post-Consumer					

\* Failure occurs through membrane rupture not seam failure.

<b>EnergySmart Colors</b>	<b>Initial Solar Reflectance</b>	<b>3 Year Reflectance</b>	<b>Initial Thermal Emittance</b>	<b>3 Year Thermal Emittance</b>	<b>Initial Solar Reflectance Index</b>	<b>3 Year Solar Reflectance Index</b>
EnergySmart White *1	0.83	0.70	0.90	0.86	104	85
EnergySmart Tan *1	0.73	0.65	0.85	0.86	89	78
EnergySmart Light Grey *2	0.50	0.44	0.84	0.85	56	49
EnergySmart Patina Green *2	0.55	pending	0.86	pending	64	pending

\*1 Sika Sarnafil EnergySmart White and Tan membranes meet ENERGY STAR®, LEED, Green Globes and California's Title 24 criteria for Low and Steep Slope applications. \*2 Sarnafil EnergySmart Light Grey and Patina Green membranes meet ENERGY STAR®, LEED and Green Globes criteria for Steep Slope applications. EnergySmart Light Grey meets California's Title 24 criteria for Steep Slope applications. EnergySmart Patina Green meets Title 24 criteria for steep slope applications with a 3 year calculated value of 0.445 when using Title 24's aged reflectance equation.



**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:** usa.sarnafil.sika.com

**Email:** webmaster.sarnafil@us.sika.com

**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.

**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:** can.sika.com

ENERGY STAR for roofing products is only valid in the United States