

**PRODUCT DATA SHEET**

Edition 10.2018/v1



# Sarnafil® G410 EnergySmart Roof Membrane

▲ 1.2 mm (48 mil) ▲ 1.5 mm (60 mil) ▲ 1.8 mm (72 mil) ▲ 2.0 mm (80 mil) ▲ Feltback

<b>Description</b>	<p>Sarnafil® G410 EnergySmart Roof Membrane is a PVC thermoplastic membrane produced with an integral fiberglass mat reinforcement.</p> <p><b>Uses:</b> Sarnafil® G410 EnergySmart Roof Membrane is used in adhered applications with various adhesives over various substrates.</p> <p><b>Areas of application</b></p> <ul style="list-style-type: none"> <li>▪ New roofs</li> <li>▪ Reroofs</li> <li>▪ Flashings</li> </ul>
<b>Composition</b>	<ul style="list-style-type: none"> <li>▪ <b>Manufacturing:</b> High-quality, PVC membrane containing ultraviolet light stabilizers, flame retardant, and fiberglass reinforcement with a unique lacquer coating on the top surface.</li> <li>▪ <b>Colour: Top:</b> White, Reflective Grey, Tan <b>Bottom:</b> Grey</li> </ul>
<b>Features</b>	<ul style="list-style-type: none"> <li>▪ Excellent dimensional stability.</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> <li>▪ Guaranteed thickness</li> <li>▪ Highly reflective</li> <li>▪ Heat-welded seams</li> <li>▪ Superior fire resistance</li> </ul>
<b>Codes and Approvals:</b>	<ul style="list-style-type: none"> <li>▪ FM Global.</li> <li>▪ Underwriters Laboratories, Inc.</li> <li>▪ Underwriters Laboratories of Canada</li> <li>▪ ICC Code Compliance – ESR 1157</li> <li>▪ Miami-Dade / Florida Building Code (Code du bâtiment)</li> <li>▪ NSF/ANSI 347: Platinum Certified</li> <li>▪ ENERGY STAR®</li> <li>▪ California Title 24</li> <li>▪ LEED / Green Globe</li> <li>▪ CSA A123.21</li> </ul>

**Packaging for White / Reflective Grey / Tan colours**

▪ **1.2 mm (48 mil) Membrane\***

Bareback: 3 x 45 m (10 x 150 ft) roll - Shipping weight: 210 kg (464 lb) per roll - 8 rolls/pallet  
1.50 x 45 m (5 x 150 ft) roll - Shipping weight: 105 kg (232 lb) per roll - 12 rolls/pallet

Feltback: 3 x 30 m (10 x 100 ft) roll - Shipping weight: 165 kg (363 lb) per roll - 9 rolls/pallet

*\* Made to order, minimum volume required, extended production lead times. Contact Sika Canada for further information.*

▪ **1.5 mm (60 mil) Membrane**

Bareback: 3 x 30 m (10 x 100 ft) roll - Shipping weight: 176 kg (389 lb) per roll - 8 rolls/pallet  
1.50 x 30 m (5 x 100 ft) roll - Shipping weight: 88 kg (195 lb) per roll - 12 rolls/pallet

Coverstrip: 200 mm x 30 m (8 in x 100 ft) roll - Shipping weight: 11 kg (25 lb) per roll

Feltback: 3 x 24 m (10 x 80 ft) roll - Shipping weight: 160 kg (354 lb) per roll - 9 rolls/pallet

▪ **1.8 / 2.0 mm (72 / 80 mil) Membrane\***

Bareback: 3 x 30 m (10 x 100 ft) roll - Shipping weight: 213 / 235 kg (471 / 520 lb) per roll, 4 rolls/pallet

1.50 x 30 m (5 x 100 ft) roll - Shipping weight: 107 / 118 kg (236 / 260 lb) per roll, 9 rolls/pallet

Feltback: 3 x 15 m (10 x 50 ft) roll - Shipping weight: 119 / 130 kg (262 / 287 lb) per roll, 10 rolls/pallet

3 x 24 m (10 x 80 ft) roll - Shipping weight: 190 / 208 kg (419 / 459 lb) per roll, 8 rolls/pallet

*\* Reflective Grey and Tan are made to order, minimum volume required, extended production lead times. Contact Sika Canada for further information.*

**Packaging for Patina Green**

▪ **1.2 mm (48 mil) Membrane\***

Bareback: 2 x 20 m (6.56 x 65.6 ft) roll - Shipping weight: 60 kg (133 lb) per roll, 19 rolls per pallet  
1 x 20 m (3.25 x 65.6 ft) roll - Shipping weight: 29 kg (63 lb) per roll, 20 rolls per pallet

Feltback: 2 x 20 m (6.56 x 65.6 ft) roll - Shipping weight: 71 kg (157 lb) per roll, 15 rolls per pallet

*\* Made to order, minimum volume required, extended production lead times. Consult with Sika – Roofing representative for further information.*

▪ **1.5 mm (60 mil) Membrane**

Bareback: 2 x 20 m (6.56 x 65.6 ft) roll - Shipping weight: 76 kg (168 lb) per roll, 19 rolls per pallet

Coverstrip: 200 mm x 30 m (8 in x 100 ft) roll - Shipping weight: 11 kg (25 lb) per roll

Feltback: 2 x 20 m (6.56 x 65.6 ft) roll - Shipping weight: 86 kg (190 lb) per roll, 10 rolls per pallet

▪ **1.8 / 2.0 mm (72 / 80 mil) Membrane\***

Bareback: 2 x 15 m (6.56 x 49.2 ft) roll - Shipping weight: 69 / 76 kg (152 / 168 lb) per roll, 19 rolls/pallet

Feltback: 2 x 15 m (6.56 x 49.2 ft) roll - Shipping weight: 77 / 84 kg (170 / 185 lb) per roll, 10 rolls/pallet

**Storage :** 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.

<b>Installation</b>	Sarnafil® G410 EnergySmart Roof Membrane is installed by a Sika® Canada Authorized Applicator. After proper preparation of the substrate, the membrane is unrolled into Sarnacol adhesive in accordance with Sika Canada's Technical requirements and then pressed into place with a minimum 45 kg (100 lb) linoleum roller. The membrane seams are then heat-welded together by trained operators using Sika® Sarnafil®'s hot-air welding equipment. Note that different Sarnacol adhesives require different application methods. Consult Sika Canada's Applicator Handbook for detailed installation procedures.
<b>Availability</b>	Sarnafil® G410 EnergySmart Roof Membrane 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 <a href="http://www.sika.ca">www.sika.ca</a> for further information.
<b>Warranty</b>	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.
<b>Maintenance</b>	Sarnafil® G410 EnergySmart Roof Membrane requires no 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, plugged drains, weathered sealants, etc. at least twice a year and after each storm.

**Technical Support** Sika Canada provides technical support. Technical staff is available to advise applicators as to the proper installation method.

**Technical Data**

Properties	TYPICAL PHYSICAL PROPERTIES*					
	ASTM Test Method	ASTM D4434 Type II Requirement	Typical Results			
Overall thickness mm (mil)	D751	1.14 (45)	1.2 (48)	1.5 (60)	1.8 (72)	2.0 (80)
Thickness Above Scrim, mm (mils)		0.40 (16)	0.55 (22)	0.67 (27)	0.87 (35)	1.0 (40)
Reinforcing Material	-	-	Fibreglass			
Felt Weight, g/m <sup>2</sup> (oz/vg <sup>2</sup> ) - (feltback membrane only)	-	-	305 (9)	305 (9)	305 (9)	305 (9)
Breaking Strength, N (lbf/in)	D751	245 (55)	267 (60)	356 (80)	445 (100)	489 (110)
Elongation at Break, (%) M.D. & C.M.D. <sup>1</sup>	D751	250 & 220	250 & 220			
Seam Strength, min. (% of original) <sup>2</sup>	D751	75	Pass			
Retention of Properties After Heat Aging	D3045					
- Tensile Strength, min. (% of original)	D751	90	Pass			
- Elongation, min. (% of original)	D751	90	Pass			
Tearing Resistance (M.D.), min. N (lbf)	D1004	45 (10)	67 (15)	78 (17.5)	91 (20.5)	98 (22)
Low Temperature Bend: -40 °C (-40 °F)	D2136	Pass	Pass			
Accelerated Weathering Test (Florescent Light, UV exposure)	G154	5,000 h	10,000 h			
- Cracking (7x magnification)	-	None	None			
- Discoloration (by observation)	-	Negligible	Negligible			
- Cracking (7x magnification)	-	None	None			
Linear Dimensional Change (%)	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 - kg (lbf)	D5602	15 (33)	Pass			
Dynamic Puncture Resistance - J (ft-lbf)	D5635	10 (7.3)	Pass			
Recycled Content <sup>3</sup>	9 % Pre-Consumer ; 1 % Post-Consumer					

\* Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions, and curing conditions.  
<sup>1</sup> M.D. = Machine Direction, C.M.D. = Cross Machine Direction  
<sup>2</sup> Failure occurs through membrane rupture not seam failure.  
<sup>3</sup> Only on Energy Smart White, Energy Smart Tan and Energy Smart Reflective Grey

EnergySmart Colours	Initial Solar Reflectance <sup>1</sup>	3-year Solar Reflectance <sup>1</sup>	Initial Thermal Emittance <sup>2</sup>	3-year Thermal Emittance <sup>2</sup>	Initial Solar Reflectance Index	3-year Solar Reflectance Index
EnergySmart White <sup>3</sup>	0.85	0.74	0.86	0.84	107	90
EnergySmart Tan <sup>3</sup>	0.73	0.65	0.85	0.86	89	78
EnergySmart Reflective Grey <sup>4</sup>	0.73	0.65	0.89	0.88	90	78

**Health and Safety Information**

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

**KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY**

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, within their shelflife. 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](http://www.sika.ca)

**SIKA CANADA INC.**  
**Head Office**  
 601, avenue Delmar  
 Pointe-Claire, Quebec  
 H9R 4A9

**Other locations**  
 Toronto  
 Edmonton  
 Vancouver

**1-800-933-SIKA**  
**[www.sika.ca](http://www.sika.ca)**

Certified ISO 9001 (CERT-0102780)  
 Certified ISO 14001 (CERT-0102791)

