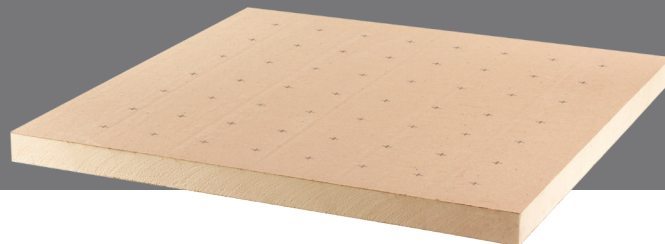




GAF EnergyGuard™ RA Polyiso Insulation



Description:

EnergyGuard™ RA Polyiso Insulation is made of glass fiber reinforced cellulosic facers (GRF) bonded to a core of polyisocyanurate foam.

Features and Benefits:

- Versatile — approved component in single-ply, BUR, and modified bitumen systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid and ballasted
- Approved for direct application to steel decks
- High insulation value — polyiso insulation has the highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- Because of its light weight, this material is easy to handle on the jobsite and installs quickly; easy cutting in the field provides the installer with simplified fabricating on the roof deck
- Excellent dimensional stability, high moisture resistance and low water permeability

Codes & Compliance:

- Meets the requirements of ASTM C1289 Type II, Class 1, Grade 2 (20 psi) and also available in Grade 3 (25 psi)
- Meets the requirements of CAN/ULC-704, Type 2, Class 3 or Type 3, Class 3
- FM Approved — refer to RoofNav.com for approved assemblies
- Classified by UL in accordance with ANSI/UL 1256, 790, and 263. Refer to UL Product iQ for specific assemblies
- Miami-Dade County Product Control Approved
- State of Florida Approved
- For additional information, contact GAF at 877-423-7663 or designservices@gaf.com



EnergyGuard™ RA Polyiso Thermal Values:

Size*	R-Value**	Max Flute Span
1.0" (25.4 mm)	5.7	2 5/8" (66.7 mm)
1.2" (30.5 mm)	6.8	2 5/8" (66.7 mm)
1.5" (38.1 mm)	8.6	4 3/8" (111 mm)
2.0" (51 mm)	11.4	4 3/8" (111 mm)
2.3" (58 mm)	13.2	4 3/8" (111 mm)
2.5" (64 mm)	14.4	4 3/8" (111 mm)
2.6" (66 mm)	15.0	4 3/8" (111 mm)
2.8" (71 mm)	16.2	4 3/8" (111 mm)
3.0" (76 mm)	17.4	4 3/8" (111 mm)
3.2" (81 mm)	18.6	4 3/8" (111 mm)
3.5" (89 mm)	20.5	4 3/8" (111 mm)
3.7" (94 mm)	21.7	4 3/8" (111 mm)
4.0" (102 mm)	23.6	4 3/8" (111 mm)
4.3" (109 mm)	25.5	4 3/8" (111 mm)
4.5" (114 mm)	26.8	4 3/8" (111 mm)

* Other thicknesses available upon request.

** Long Term Thermal Resistance Values provide a 15-year time weighted average in accordance with CAN/ULC S770.

For optimal roof performance and to prevent thermal bridging, GAF recommends installing two layers of polyiso with staggered joints.

Panel Characteristics:

- Available in a variety of thicknesses from 1.0" (25.4 mm) to 4.5" (114 mm) to best suit your specifications
- Available in 4' x 4' (1.22m x 1.22m) and 4' x 8' (1.22m x 2.44m) boards



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Sustainability:

- Manufactured with EPA compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- Potential LEED Credits for Polyiso Use
- Environmental Product Declaration (EPD) (Industry)
- EnergyGuard™ RA contains between 52.9% and 27.6% recycled materials by weight
- Has achieved GreenGuard Gold Certification



Typical Physical Property Data:

Property	Test Method	ASTM C1289 Value	CAN/ULC-704 Value
Compressive Strength	ASTM D1621	Grade 2 - min. 20 psi (138 kPa)	Type 2 - min. 140 kPa (20.3 psi)
		Grade 3 - min. 25 psi (172 kPa)	Type 3 - min. 170 kPa (24.7 psi)
Dimensional Stability	ASTM D2126	max. 2% (length & width) max. 4% (thickness)	max. 2% (length & width)
Tensile Strength	ASTM C209	min. 500 psf (24 kPa)	
	ASTM D1623		Type 2 - 3 min. 35 kPa (731 psf)
Water Absorption (% by vol.)	ASTM C209	max 1.5%	
	ASTM D2842		max. 3.5%
Water Vapor Permeance	ASTM E96	max. 1.5 perm [85.8 ng/(Pa•s•m²)]	
			Class 3 - min. 60 ng/(Pa•s•m²) [1 perm]

Surface Burning and Service Temperature Data:

	Test Method	Value
Service Temperature	n/a	-100 to 250 °F (-73.3 to 121.1 °C)
Flame Spread Index	ASTM E84 / UL 723	max. 75*
Smoke Developed Index	ASTM E84 / UL 723	max. 200*

* Foam Core

Installation

- EnergyGuard™ RA Polyiso Insulation is a non-structural, non load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- EnergyGuard™ RA Polyiso Insulation should be stored protected from the elements. Bundle wrap is not for use as waterproofing for boards. No more insulation should be installed than can be completely covered with roofing on the same day.
- Refer to PIMA Technical Bulletin No.109 Storage and Handling Recommendations for Polyiso Roof Insulation at www.polyiso.org.
- As unprotected polyisocyanurate will burn, fire safety precautions should be observed wherever insulation products are used.
- Direct mopping of modified bitumen roofing or built-up roofing (BUR) to EnergyGuard™ RA Polyiso Insulation is not approved.
- Refer to the application specifications in the current GAF Membrane Installation Guide and specifications manual for proper installation procedures.



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