



## EnergyGuard™ RA **Tapered** Polyiso Insulation



### Description:

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

### Features and Benefits:

- Prevents ponding water when properly installed on a low-slope roof by providing slope via a series of both tapered and flat polyiso fill boards
- High insulation value - polyiso insulation has the highest R-value per inch compared to any other type of non-polyiso insulation or 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
- Versatile — approved component in single-ply, BUR, modified bitumen, and ballasted systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid

### Panel Characteristics:

- EnergyGuard™ RA Tapered Polyiso Insulation is offered in a variety of slopes to achieve positive drainage as well as long-term thermal resistance (LTTR).
- Available in  
**Size:** 4ft x 4ft (1.22m x 1.22m) panels  
**Thickness:** 1/2" - 4.6" (12.7mm - 114.3 mm)  
**Slope:** with 1/8" (3mm), 1/4" (6mm), and 1/2" (12mm) per foot slope\*

\* Other slopes available. Order minimums may apply.

### 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](mailto:designservices@gaf.com)

### 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 Tapered contains between 52.9% and 27.6% recycled materials by weight

### Tapered Design Team:

Our Tapered Design Group specialists are available within your region to assist you in all aspects of preplanning, design, and training. Contact GAF at [tdg@GAF.com](mailto:tdg@GAF.com) or 866.207.7123

### Our services include:

- Conceptual design assistance
- Quote review and comparison
- Plan and spec review
- Alternate design recommendations
- Job startups, trainings, and presentations



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**ASTM C1289 Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi) • CAN/ULC-704, Type 2, Class 3 or Type 3, Class 3**

SLOPE*	LABEL*	THICKNESS			THERMAL RESISTANCE		BRD FT/ PIECE	PCS/ UNIT	BRD FT/ UNIT	SQ FT/ UNIT	WEIGHT (LB/SF)	RECYCLED CONTENT		
		MIN	MAX	AVG	AVG LTTR VALUE	RSI						POST CONSUMER	PRE CONSUMER	TOTAL
1/8"	AA	0.5	1.0	0.75	4.3	0.76	12	64	768	1024	0.211	39.1%	20.0%	59.0%
	A	1.0	1.5	1.25	7.1	1.25	20	38	760	608	0.279	29.6%	18.6%	48.2%
	B	1.5	2.0	1.75	10.0	1.76	28	26	728	416	0.346	23.8%	17.8%	41.6%
	C	2.0	2.5	2.25	12.9	2.27	36	20	720	320	0.414	19.9%	17.3%	37.2%
	D	2.5	3.0	2.75	15.9	2.80	44	16	704	256	0.481	17.1%	16.9%	34.0%
	E	3.0	3.5	3.25	18.9	3.33	52	14	728	224	0.549	15.0%	16.6%	31.6%
1/4"	F	3.5	4.0	3.75	22.0	3.87	60	12	720	192	0.616	13.4%	16.3%	29.7%
	X	0.5	1.5	1.0	5.7	1.00	16	48	768	768	0.245	33.7%	19.2%	52.9%
	Y	1.5	2.5	2.0	11.4	2.01	32	24	768	384	0.380	21.7%	17.5%	39.2%
	Z	2.5	3.5	3.0	17.4	3.06	48	16	768	256	0.515	16.0%	16.7%	32.7%
1/4"	ZZ	3.5	4.5	4.0	23.6	4.15	64	10	640	160	0.650	12.7%	16.3%	28.9%
	G	1.0	2.0	1.5	8.6	1.51	24	32	768	512	0.313	26.4%	18.2%	44.6%
	H	2.0	3.0	2.5	14.4	2.53	40	18	720	288	0.448	18.4%	17.1%	35.5%
1/2"	I	3.0	4.0	3.5	20.5	3.61	56	12	672	192	0.583	14.2%	16.5%	30.6%
	Q	0.5	2.5	1.5	8.6	1.51	24	32	768	512	0.313	26.4%	18.2%	44.6%
	QQ	2.5	4.5	3.5	20.5	3.61	56	12	672	192	0.583	14.2%	16.5%	30.6%
	XX	1.0	3.0	2.0	11.4	2.01	32	22	704	352	0.380	21.7%	17.5%	39.2%

\* Full bundles only. Other slopes available. Order minimum may apply.

## 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 Tapered Polyiso Insulation is a non-structural, non load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- EnergyGuard™ RA Tapered 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](http://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 Tapered 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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