



EnergyGuard™ RA UltraTapered Polyiso Insulation



Description:

EnergyGuard™ RA Ultra Tapered Polyiso Insulation is a closed-cell polyisocyanurate (polyiso) foam core integrally bonded to inorganic coated glass facers. EnergyGuard™ RA Ultra Tapered Polyiso Insulation is offered in a variety of slopes, to achieve positive drainage as well as long-term thermal resistance (LTTR).

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
- Highest R-Value per inch of any rigid board insulation
- Easy to install—lightweight, easy to cut, easy to handle
- Versatile—approved component in single-ply, BUR, modified bitumen, and ballasted systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid
- Recognized by the GREENGUARD Environmental Institute as resistant or highly resistant to mold growth, based on independent testing using GREENGUARD Test method GGTM P040 (ASTM D6329) for microbial resistance†

† GAF warranties and guarantees do not provide coverage against mold or other biological growth. Refer to gaf.com for more information on warranty and guarantee coverage and restrictions.

Panel Characteristics:

- EnergyGuard™ RA Ultra 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 minimum may apply.

Codes & Compliance:

- Meets the requirements of ASTM C1289, Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25 psi)
- Meets the requirements of CAN/ULC-704, Type 2, Class 3 or Type 3, Class 3
- FM Approved—consult RoofNav.com for specific 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



Sustainability:

- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP)
- EnergyGuard™ RA Ultra Polyiso Insulation contains between 10.85% and 4.62% recycled materials by weight
- Has achieved GREENGUARD GOLD Certification



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 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 2, 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 LTRR 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%
1/4"	H	2.0	3.0	2.5	14.4	2.53	40	18	720	288	0.448	18.4%	17.1%	35.5%
	I	3.0	4.0	3.5	20.5	3.61	56	12	672	192	0.583	14.2%	16.5%	30.6%
1/2"	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. 4 perms (228.8 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

Installation

- EnergyGuard™ RA Ultra Tapered Polyiso Insulation shall be kept dry before, during and after installation.
- Refer to product packaging and PIMA Technical Bulletin #109 for storage and handling recommendations.
- This product will burn if exposed to an ignition source of sufficient heat and intensity. Do not apply flame directly to EnergyGuard™ RA Ultra Tapered Polyiso Insulation.
- Typical field fastening requirements can be obtained from GAF membrane system manufacturer or FM Global Property Loss Prevention Data Sheets 1-29.
- Refer to the application specifications in the current GAF Membrane Installation Guide and specifications manual for proper installation procedures.



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