

Sloped NH Polyiso with CGF Facers which Maintains Low Temperature R-Value per ASTM C518



GAF EnergyGuard™ **NH UltraTapered** Polyiso Insulation



Description:

EnergyGuard™ NH Ultra Tapered Polyiso Insulation is a sloped panel made of durable coated glass facers (CGF) bonded to a core of non-halogenated polyisocyanurate foam.

Features and Benefits:

- EnergyGuard™ NH Ultra Tapered Polyiso Insulation is better for the environment because it does not contain potentially hazardous flame-retardant chemicals
- Maintains the same R-value when tested according to ASTM C1289 standard using the C518 test method at both a mean temperature of 40° F (4.4° C) and 75° F (24° C)
- EnergyGuard™ NH Ultra Tapered Polyiso Insulation holds a Health Product Declaration (HPD), is Green Circle third party recycled content certified and is a Red List Free product with a Declare label designation
- Achieves ANSI/UL 790 (and ASTM E108) Class A fire resistance ratings without the use of halogenated flame retardants. Refer to UL Product iQ (and other agency listings) for specific assemblies
- 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
- Meets the requirements of D3273 for resistance to mold growth ††
- 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

Panel Characteristics:

- Sizes:** 4' x 4' (1.22m x 1.22m) – 4' x 8' (1.22m x 2.44m) available upon request
- Thickness:** ½" – 4½" (12.7 mm – 114.3 mm) in a single layer
- Slope:** 1/16" (1.6 mm), 1/8" (3.2 mm), 3/16" (4.8 mm), 1/4" (6.35 mm), 3/8" (9.5 mm), 1/2" (12.7 mm)

Codes and Compliance:

- Meets the requirements of ASTM C1289 Type II, Class II, Grade 2 (20 psi) or Grade 3 (25 psi)
- FM Approved — consult RoofNav.com for specific assemblies
- Classified by UL in accordance with ANSI/UL 1256, UL 790, and UL 263. Refer to UL Product iQ for specific assemblies
- UL Evaluation Report ER1306-03
- Miami-Dade County Product Control Approved
- State of Florida Approved
- For additional information contact GAF at 877-423-7663 or designservices@gaf.com



Tapered Design Team:

Our Tapered Design Group specialists are available within your region to assist you in all aspects of pre-planning, design, and training. Reach out 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, presentations

Sustainability:

- EnergyGuard™ NH Ultra Tapered Polyiso board holds the polyiso industry's only specific Environmental Product Declaration (EPD) for non-halogenated products.
- Can contribute towards sustainable certifications under a green building rating system such as LEED v4, or Living Building Challenges
- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- Green Circle Certified for recycled content
- Potential LEED Credits for Polyiso Use
- Health Product Declaration (HPD)
- Living Building Challenge Red List Approved
- GREENGUARD Gold
- Where sold compliant with State HFC regulations. More information available at www.polyiso.org

For more information go to gaf.com/green

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TYPICAL PHYSICAL PROPERTY DATA CHART*

PROPERTY	TEST METHOD	VALUES
Compressive Strength	ASTM D1621	Grade 2 - 20 psi min (138 kPa) Grade 3 - 25 psi min (172 kPa)
Dimensional Stability Change (length + width)**	ASTM D2126	< 2% linear change
Flexural Strength	ASTM C203	40 psi min (275 kPa)
Tensile Strength	ASTM C209	500 psf max (24 kPa)
Water Absorption (percent by volume)	ASTM C209	1.5% max
Water Vapor Permeance	ASTM E96 Procedure A	1.5 perm max (85.8ng/Pa•s•m²)
Service Temperature		-100° to 250 °F (-73.3° to 121.1 °C)
Flame Spread Index†	ASTM E84	< 75*
Smoke Developed Index	ASTM E84	< 200*
Resistance to Mold††	ASTM D3273	Pass (10)

* Foam Core

** Stated dimensional stability tolerance: thickness shall not diminish by more than 4% max.

† These numerical ratings are not intended to reflect hazards presented by these or any other material under actual fire conditions.

†† 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.

TAPERED POLYISO PHYSICAL CHARACTERISTICS AND SHIPPING INFORMATION

Physical Characteristics				Shipping Information (4' x 4') (1.22 m x 1.22 m)				
Slope	Thickness (Inches/Millimeters)	Size*	Average Thickness (Inches/Millimeters)	Board Feet Per Panel	Boards/ Bundle	Boards/ Truck	Bundle/ Truck	Sq. Ft. Per Truck
1/16" (1.6 mm)	0.5 - 0.75 (12.7 - 19.1)	1	0.625 (15.9)	10	72	3,456	48	55,296 (5,137 sq. m)
	0.75 - 1.0 (19.1 - 25.4)	2	0.875 (22.2)	14	52	2,496	48	39,936 (3,710 sq. m)
	1.0 - 1.25 (25.4 - 31.8)	3	1.125 (28.6)	18	40	1,920	48	30,720 (2,854 sq. m)
	1.25 - 1.5 (31.8 - 38.1)	4	1.375 (34.9)	22	32	1,536	48	24,576 (2,283 sq. m)
	1.5 - 1.75 (38.1 - 44.5)	5	1.625 (41.3)	26	28	1,344	48	21,504 (1,998 sq. m)
	1.75 - 2.0 (44.5 - 51.0)	6	1.875 (47.6)	30	24	1,152	48	18,432 (1,712 sq. m)
	2.0 - 2.25 (51.0 - 57.2)	7	2.125 (54.0)	34	20	960	48	15,360 (1,427 sq. m)
	2.25 - 2.5 (57.2 - 64.0)	8	2.375 (60.3)	38	18	864	48	13,824 (1,284 sq. m)
1/8" (3.2 mm)	0.5 - 1.0 (12.7 - 25.4)	AA	0.75 (19.1)	12	64	3,072	48	49,152 (4,566 sq. m)
	1.0 - 1.5 (25.4 - 38.1)	A	1.25 (31.8)	20	38	1,824	48	29,184 (2,711 sq. m)
	1.5 - 2.0 (38.1 - 51.0)	B	1.75 (44.5)	28	26	1,248	48	19,968 (1,855 sq. m)
	2.0 - 2.5 (51.0 - 64.0)	C	2.25 (57.2)	36	20	960	48	15,360 (1,427 sq. m)
	2.5 - 3.0 (64.0 - 76.2)	D	2.75 (70.0)	44	16	768	48	12,288 (1,142 sq. m)
	3.0 - 3.5 (76.2 - 89.0)	E	3.25 (82.6)	52	14	672	48	10,752 (999 sq. m)
	3.5 - 4.0 (89.0 - 102.0)	F	3.75 (95.3)	60	12	576	48	9,216 (856 sq. m)
	4.0 - 4.5 (102.0 - 114.3)	FF	4.25 (108.0)	68	10	480	48	7,680 (713 sq. m)
3/16" (4.8 mm)	0.5 - 1.25 (12.7 - 31.8)	JJ	0.875 (22.2)	14	50	2,400	48	38,400 (3,567 sq. m)
	1.25 - 2 (31.8 - 51.0)	KK	1.625 (41.3)	26	26	1,248	48	19,968 (1,855 sq. m)
	2.0 - 2.75 (51.0 - 70.0)	LL	2.375 (60.3)	38	20	960	48	15,360 (1,427 sq. m)
	2.75 - 3.5 (70.0 - 89.0)	MM	3.125 (79.4)	50	15	720	48	11,520 (1,070 sq. m)
	1.0 - 1.75 (25.4 - 44.5)	J	1.375 (34.9)	22	34	1,632	48	26,112 (2,426 sq. m)
	1.75 - 2.5 (44.5 - 64.0)	K	2.125 (54.0)	34	22	1,056	48	16,896 (1,570 sq. m)
	2.5 - 3.25 (64.0 - 82.6)	L	2.875 (73.0)	46	16	768	48	12,288 (1,142 sq. m)
	3.25 - 4.0 (82.6 - 102.0)	M	3.625 (92.1)	58	12	576	48	9,216 (856 sq. m)
1/4" (6.35 mm)	0.5 - 1.5 (12.7 - 38.1)	X	1.0 (25.4)	16	48	2,304	48	36,864 (3,425 sq. m)
	1.5 - 2.5 (38.1 - 64.0)	Y	2.0 (51.0)	32	24	1,152	48	18,432 (1,712 sq. m)
	2.5 - 3.5 (64.0 - 89.0)	Z	3.0 (76.2)	48	16	768	48	12,288 (1,142 sq. m)
	3.5 - 4.5 (89.0 - 114.3)	ZZ	4.0 (102.0)	64	12	576	48	9,216 (856 sq. m)
	1.0 - 2.0 (25.4 - 51.0)	G	1.5 (38.1)	24	32	1,536	48	24,576 (2,283 sq. m)
	2.0 - 3.0 (51.0 - 76.2)	H	2.5 (64.0)	40	18	864	48	13,824 (1,284 sq. m)
	3.0 - 4.0 (76.2 - 102.0)	I	3.5 (89.0)	56	12	576	48	9,216 (856 sq. m)
	3/8" (9.5 mm)	0.5 - 2.0 (12.7 - 51.0)	SS	1.25 (31.8)	20	38	1,824	48
2.0 - 3.5 (51.0 - 89.0)		TT	2.75 (69.9)	44	16	768	48	12,288 (1,142 sq. m)
1.0 - 2.5 (25.4 - 64.0)		S	1.75 (44.5)	28	27	1,296	48	20,736 (1,926 sq. m)
1/2" (12.7 mm)	0.5 - 2.5 (12.7 - 64.0)	Q	1.5 (38.1)	24	32	1,536	48	24,576 (2,283 sq. m)
	2.5 - 4.5 (64.0 - 114.3)	QQ	3.5 (89.0)	56	12	576	48	9,216 (856 sq. m)
	1.0 - 3.0 (25.4 - 76.2)	XX	2.0 (51.0)	32	22	1,056	48	16,896 (1,570 sq. m)



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