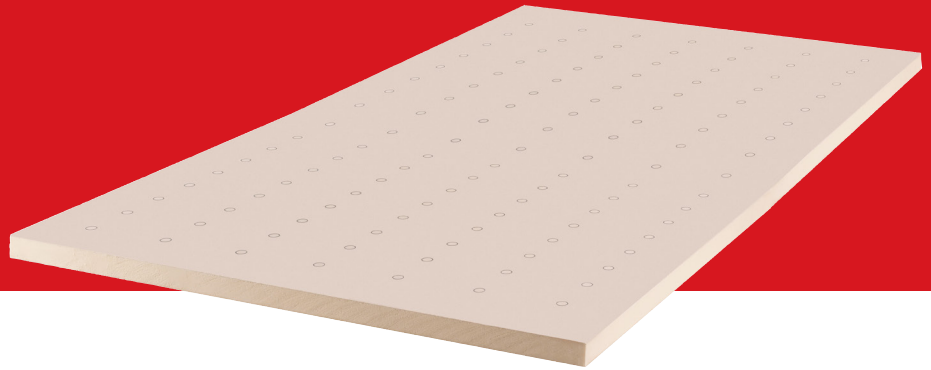




GAF EnergyGuard™ NH Ultra Polyiso Insulation



Description:

Made of coated glass facers bonded to a core of non-halogenated isocyanurate foam, EnergyGuard™ NH Ultra Polyiso Insulation can help contribute toward LEED® points for a sustainable building design. For more information, see gaf.com/greenarchitects.

Features and Benefits:

- 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), as well as improved R-values at 25°F (-3.9°C) over prior EnergyGuard™ NH Ultra Polyiso Insulation formulations
- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs and zero ozone depletion potential (ODP)
- Holds the polyiso industry's only Environmental Product Declaration (EPD) for non-halogenated polyiso board products, a Health Product

Declaration (HPD), and is a Red List Free product with a Declare label designation from Living Building Challenge (LBC)

- Because of its light weight, it's easy to handle on the jobsite and installs quickly, and provides the highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- Meets the requirements of ASTM D3273 for resistance to mold growth¹
- Meets ASTM C1289 Type II, Class 2, Grade 2 (20 psi)², and available in Grade 3 (25 psi)²
- Meets FM 4450/4470 and UL 1256/790/263
- Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) boards and in a variety of thicknesses from 0.5" (12.7 mm) to 4.6" (116 mm)

Uses:

- Suitable for use in many low-slope roofing applications

- Designed for use over structural roof decks where R-values of 5.7 or higher are required, along with comprehensive UL and FM approvals^{3,4}
- Can be used to achieve an ANSI UL 790 and ASTM E108 Class A roof fire rating in certain approved systems without the use of halogenated flame retardants. Minimum of 3" [76 mm] is required when used with TPO over combustible roof decks for a Class A roofing fire rating; a minimum of 1.5" [38.1 mm] is required when used with TPO for a Class B roofing fire rating.⁴

¹ 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.

² Stated Dimensional Stability Tolerance: Board thickness shall not diminish by more than 2% max.

³ Refer to FM Approvals at RoofNav.com for actual assemblies.

⁴ Refer to UL Product iQ (iq.ulprospector.com/info/) for actual assemblies.

For full application instructions please consult the applicable specification manual for the system being installed available at gaf.com. For information on this application, contact GAF Technical Support at 1-877-GAF-ROOF or technicalquestions@gaf.com.

PHYSICAL PROPERTY DATA CHART

PROPERTY	TEST METHOD	VALUE***
Thermal Resistance	ASTM C518	R 5.8 - R6.0 40°F (4.4°C)**** R5.9 - R6.1 75°F (24°C)****
Compressive Strength	ASTM D1621	≥ 20 PSI
Dimensional Stability (Length + Width)**	ASTM D2126	< 2%
Water Absorption	ASTM C209	< 1.5%
Moisture Vapor Transmission	ASTM E96	< 1.5 Perm
Service Temperature		-100° to 250°F (-73.3° to 121.1°C)
Flame Spread Index	ASTM E84	< 75*
Smoke Developed Index	ASTM E84	< 200*

* Foam Core

** Stated dimensional stability tolerance: Board thickness shall not diminish by more than 2% max.

*** Published ASTM Standard

**** Actual tested values. Values stated are approximate and subject to normal manufacturing variation. These values are not guaranteed and are provided solely as a guide.

Codes & Compliance

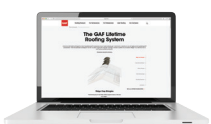


Refer to FM Approvals at RoofNav.com for actual assemblies

Refer to UL Product iQ (<http://iq.ulprospector.com/info/>) for actual assemblies

State of Florida Approved

Green Certifications



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FLAT STOCK PHYSICAL CHARACTERISTICS AND SHIPPING INFORMATION

PHYSICAL CHARACTERISTICS			SHIPPING INFORMATION (4' X 4') (1.21 m X 1.21 m)					SHIPPING INFORMATION (4' X 8') (1.21 m X 2.44 m)						
Thickness*	R-Value**	Max Flute Span (in)	Bds/Bundle	Bds/Truck	Bundles/Truck	Squares Per Bundle	Sq. Ft. Per Bundle	Sq. Ft. Per Truck	Bds/Bundle	Bds/Truck	Bundles/Truck	Squares Per Bundle	Sq. Ft. Per Bundle	Sq. Ft. Per Truck
0.5" (12.7 mm)	2.9	2 3/8" (66.7 mm)	48	4,608	96	7.68	768	73,728 (6,849 sq. m)	48	1,152	48	15.36	1,536	73,728 (6,849 sq. m)
1.0" (25.4 mm)	5.7	2 3/8" (66.7 mm)	48	2,304	48	7.68	768	36,864 (2,425 sq. m)	48	1,152	24	15.36	1,536	36,864 (2,425 sq. m)
1.1" (27.9 mm)	6.3	2 3/8" (66.7 mm)	43	2,064	48	6.88	688	33,024 (3,068 sq. m)	43	1,032	24	13.76	1,376	33,024 (3,068 sq. m)
1.2" (30.5 mm)	6.8	2 3/8" (66.7 mm)	38	1,824	48	6.08	608	29,184 (2,711 sq. m)	38	912	24	12.16	1,216	29,184 (2,711 sq. m)
1.3" (33 mm)	7.4	2 3/8" (66.7 mm)	36	1,728	48	5.76	576	27,648 (2,568 sq. m)	36	864	24	11.52	1,152	27,648 (2,568 sq. m)
1.4" (35.6 mm)	8.0	4 3/8" (111 mm)	34	1,632	48	5.44	544	26,112 (2,426 sq. m)	34	816	24	10.88	1,088	26,112 (2,426 sq. m)
1.5" (38.1 mm)	8.6	4 3/8" (111 mm)	32	1,536	48	5.12	512	24,576 (2,283 sq. m)	32	768	24	10.24	1,024	24,576 (2,283 sq. m)
1.6" (40.6 mm)	9.1	4 3/8" (111 mm)	30	1,440	48	4.8	480	23,040 (2,140 sq. m)	30	720	24	9.60	960	23,040 (2,140 sq. m)
1.7" (43.1 mm)	9.7	4 3/8" (111 mm)	28	1,344	48	4.48	448	21,504 (1,998 sq. m)	28	672	24	8.96	896	21,504 (1,998 sq. m)
1.75" (44.4 mm)	10	4 3/8" (111 mm)	27	1,296	48	4.32	432	20,736 (1,926 sq. m)	27	648	24	8.64	864	20,736 (1,926 sq. m)
1.8" (45.7 mm)	10.3	4 3/8" (111 mm)	25	1,200	48	4	400	19,200 (1,784 sq. m)	25	600	24	8.00	800	19,200 (1,784 sq. m)
1.9" (48.3 mm)	10.8	4 3/8" (111 mm)	25	1,200	48	4	400	19,200 (1,784 sq. m)	25	600	24	8.00	800	19,200 (1,784 sq. m)
2.0" (51 mm)	11.4	4 3/8" (111 mm)	24	1,152	48	3.84	384	18,432 (1,712 sq. m)	24	576	24	7.68	768	18,432 (1,712 sq. m)
2.1" (53 mm)	12.0	4 3/8" (111 mm)	22	1,056	48	3.52	352	16,896 (1,570 sq. m)	22	528	24	7.04	704	16,896 (1,570 sq. m)
2.2" (56 mm)	12.6	4 3/8" (111 mm)	21	1,008	48	3.36	336	16,128 (1,498 sq. m)	21	504	24	6.72	672	16,128 (1,498 sq. m)
2.3" (58 mm)	13.2	4 3/8" (111 mm)	20	960	48	3.2	320	15,360 (1,427 sq. m)	20	480	24	6.40	640	15,360 (1,427 sq. m)
2.4" (61 mm)	13.8	4 3/8" (111 mm)	20	960	48	3.2	320	15,360 (1,427 sq. m)	20	480	24	6.40	640	15,360 (1,427 sq. m)
2.5" (64 mm)	14.4	4 3/8" (111 mm)	19	912	48	3.04	304	14,584 (1,356 sq. m)	19	456	24	6.08	608	14,584 (1,356 sq. m)
2.6" (66 mm)	15.0	4 3/8" (111 mm)	18	864	48	2.88	288	13,824 (1,284 sq. m)	18	432	24	5.76	576	13,824 (1,284 sq. m)
2.7" (69 mm)	15.6	4 3/8" (111 mm)	17	816	48	2.72	272	13,056 (1,213 sq. m)	17	408	24	5.44	544	13,056 (1,213 sq. m)
2.8" (71 mm)	16.2	4 3/8" (111 mm)	17	816	48	2.72	272	13,056 (1,213 sq. m)	17	408	24	5.44	544	13,056 (1,213 sq. m)
2.9" (74 mm)	16.8	4 3/8" (111 mm)	16	768	48	2.56	256	12,288 (1,142 sq. m)	16	384	24	5.12	512	12,288 (1,142 sq. m)
3.0" (76 mm)	17.4	4 3/8" (111 mm)	16	768	48	2.56	256	12,288 (1,142 sq. m)	16	384	24	5.12	512	12,288 (1,142 sq. m)
3.1" (79 mm)	18.0	4 3/8" (111 mm)	15	720	48	2.4	240	11,520 (1,070 sq. m)	15	360	24	4.80	480	11,520 (1,070 sq. m)
3.2" (81 mm)	18.6	4 3/8" (111 mm)	15	720	48	2.4	240	11,520 (1,070 sq. m)	15	360	24	4.80	480	11,520 (1,070 sq. m)
3.25" (83 mm)	18.9	4 3/8" (111 mm)	14	672	48	2.24	224	10,752 (999 sq. m)	14	336	24	4.48	448	10,752 (999 sq. m)
3.3" (84 mm)	19.2	4 3/8" (111 mm)	14	672	48	2.24	224	10,752 (999 sq. m)	14	336	24	4.48	448	10,752 (999 sq. m)
3.4" (86 mm)	19.9	4 3/8" (111 mm)	14	672	48	2.24	224	10,752 (999 sq. m)	14	336	24	4.48	448	10,752 (999 sq. m)
3.5" (89 mm)	20.5	4 3/8" (111 mm)	13	624	48	2.08	208	9,984 (928 sq. m)	13	312	24	4.16	416	9,984 (928 sq. m)
3.6" (91 mm)	21.1	4 3/8" (111 mm)	13	624	48	2.08	208	9,984 (928 sq. m)	13	312	24	4.16	416	9,984 (928 sq. m)
3.7" (94 mm)	21.7	4 3/8" (111 mm)	12	576	48	1.92	192	9,216 (856 sq. m)	12	288	24	3.84	384	9,216 (856 sq. m)
3.8" (97 mm)	22.3	4 3/8" (111 mm)	12	576	48	1.92	192	9,216 (856 sq. m)	12	288	24	3.84	384	9,216 (856 sq. m)
3.9" (99 mm)	23.0	4 3/8" (111 mm)	12	576	48	1.92	192	9,216 (856 sq. m)	12	288	24	3.84	384	9,216 (856 sq. m)
4.0" (102 mm)	23.6	4 3/8" (111 mm)	12	576	48	1.92	192	9,216 (856 sq. m)	12	288	24	3.84	384	9,216 (856 sq. m)
4.1" (104 mm)	24.2	4 3/8" (111 mm)	11	528	48	1.76	176	8,448 (785 sq. m)	11	264	24	3.52	352	8,448 (785 sq. m)
4.2" (106 mm)	24.8	4 3/8" (111 mm)	11	528	48	1.76	176	8,448 (785 sq. m)	11	264	24	3.52	352	8,448 (785 sq. m)
4.3" (109 mm)	25.4	4 3/8" (111 mm)	11	528	48	1.76	176	8,450 (785 sq. m)	11	264	24	3.52	352	8,450 (785 sq. m)
4.4" (112 mm)	26.0	4 3/8" (111 mm)	10	480	48	1.6	160	7,680 (713 sq. m)	10	240	24	3.20	320	7,680 (713 sq. m)
4.5" (114 mm)	26.6	4 3/8" (111 mm)	10	480	48	1.6	160	7,680 (713 sq. m)	10	240	24	3.20	320	7,680 (713 sq. m)
4.6" (116 mm)	27.1	4 3/8" (111 mm)	10	480	48	1.6	160	7,680 (713 sq. m)	10	240	24	3.20	320	7,680 (713 sq. m)

TAPERED PHYSICAL CHARACTERISTICS AND SHIPPING INFORMATION

PHYSICAL CHARACTERISTICS		SHIPPING INFORMATION (4' X 4') (1.21 m X 1.21 m)				
Slope	Thickness	Size***	Bds/Bundle	Bds/Truck	Bds/Truck	Sq. Ft. Per Truck
1/8:12	5"-1" (12.7 mm - 25.4 mm)	AA	64	3,072	48	49,152 (4,566 sq. m)
	1"-1.5" (25.4 mm - 38.1 mm)	A	38	1,824	48	29,184 (2,711 sq. m)
	1.5"-2" (38.1 mm - 51 mm)	B	26	1,248	48	19,968 (1,855 sq. m)
	2"-2.5" (51 mm - 64 mm)	C	20	960	48	15,360 (1,427 sq. m)
	2.5"-3" (64 mm - 76 mm)	D	16	768	48	12,288 (1,142 sq. m)
	3"-3.5" (76 mm - 89 mm)	E	14	672	48	10,752 (999 sq. m)
3.5"-4" (89 mm - 102 mm)	F	12	576	48	9,216 (856 sq. m)	
1/4:12	5"-1.5" (12.7 mm - 38.1 mm)	X	48	2,304	48	36,864 (3,425 sq. m)
	1.5"-2.5" (38.1 mm - 64 mm)	Y	24	1,152	48	18,432 (1,712 sq. m)
	2.5"-3.5" (64 mm - 89 mm)	Z	16	768	48	12,288 (1,142 sq. m)
	1"-2" (25.4 mm - 51 mm)	G	32	1,536	48	24,576 (2,283 sq. m)
	2"-3" (51 mm - 76 mm)	H	19	912	48	14,592 (1,356 sq. m)
1/2:12	3"-4" (76 mm - 102 mm)	I	12	576	48	9,216 (856 sq. m)
	5"-2.5" (12.7 mm - 64 mm)	Q	32	1,536	48	24,576 (2,283 sq. m)
	1"-3" (25.4 mm - 76 mm)	XX	22	1,056	48	16,896 (1,570 sq. m)

Tapered panels are also available for when the roof design requires improved drainage in slopes of 1/16:12, 3/16:12, 1/8:12, 3/8:12, 1/4:12, and 1/2:12.

* Stated dimensional stability tolerance: Board thickness shall not diminish by more than 2% max.
 ** Tested in accordance with ASTM C1289 standard.
 *** Other sizes available upon request.



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