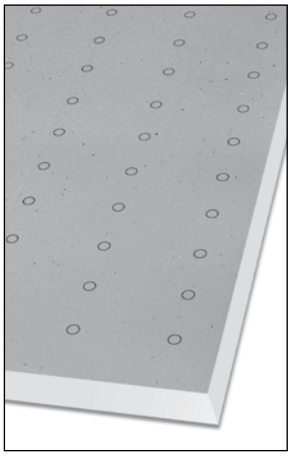
ENERGYGUARD™ NH ULTRA

POLYISO INSULATION, 20 + 25 PSI (1 of 2)

EnergyGuard™ NH Ultra Polyiso Insulation



Description

EnergyGuard™ NH Ultra Polyiso Insulation Board is made of coated glass facers bonded to a core of non-halogenated isocyanurate foam. It can help contribute toward meeting points for a sustainable building design such as LEED® or Living Building Challenge. 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; has zero ozone depletion potential (ODP)
- Holds the polyiso industry's only Environmental Product Declaration (EPD) for non-halogenated polyiso board products
- Holds a Health Product Declaration (HPD)
- Red List Approved product with a Declare label through the International Living Future Institute
- Because of its light weight, this material is easy to handle on the jobsite and installs quickly
- Highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- High moisture resistance and no capillarity; maintains physical and insulating properties as well as dimensional stability even when exposed to moisture
- Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) boards

Uses

- EnergyGuard™ NH Ultra Polyiso Insulation Board is suitable for use in many low-slope roofing applications, including built-up, modified bitumen, or single-ply roofing systems
- EnergyGuard™ NH Ultra Polyiso Insulation is designed for use over structural roof decks where R-values of 5.7 or higher are required, along with comprehensive UL and FM approvals[1,2]
- Can be used to achieve an ANSI UL790 and ASTM E108 Class A roof fire rating in certain approved systems without the use of halogenated flame retardants[1]

For full application instructions please consult the applicable specification manual for the system being installed available at gaf.com or 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 - R6.4 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 unless stated otherwise
****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

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

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

MIAMI-DADE COUNTY APPROVED
State of Florida Approved

Sustainable Design Certifications

hpd · Declare. · NSF Certified Environmental Product Declaration

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

[2] Refer to FM Approvals at RoofNav.com for actual assemblies

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Codes and Standards

- Meets ASTM C1289 Type II, Class 2, Grade 2 (20 psi), and available in Grade 3 (25 psi)
- Meets FM 4450/4470 and UL 1256/790/263. Refer to FM Approvals at RoofNav.com for actual assemblies.
- Listed by Underwriters Laboratories for use as part of a Class A, B, or C Roof Covering. See UL Product iQ for details.
- For details, consult Factory Mutual Loss Prevention Sheets 1-28, 1-29, 1-28R, 1-29R, and current Approval Guide
- Federal Specification HH-I-1972/ASTM C1289 and CCMC 12786-R

Limitations and Potential Fire Hazard

- EnergyGuard™ NH Ultra Polyiso is a non-structural, non-load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- EnergyGuard™ NH Ultra Polyiso Insulation should be stored dry and protected from the elements. No more insulation should be installed than can be completely covered with roofing on the same day. For more information contact 1-877-GAF-ROOF or refer to *PIMA Technical Bulletin No.109 Storage & Handling Recommendations for Polyiso Roof Insulation.*
- As unprotected polyisocyanurate will burn, fire safety precautions should be observed wherever insulation products are used
- Direct torching of modified bitumen roofing to EnergyGuard™ NH Ultra Polyiso Insulation will present a fire hazard. A properly installed fiberglass base sheet MUST be used over the insulation.

WARNING: DO NOT EXPOSE TO OPEN FLAME OR EXCESSIVE HEAT. MAY SMOLDER IF IGNITED. IF IGNITED, EXTINGUISH COMPLETELY.

Thermal and Physical Characteristics[1]

Thickness*		LTTR	Max. Flute Spanability	
Inches	mm	R-Value**	Inches	mm
0.5	12.7	2.9	2 5/8	66.7
1.0	25.4	5.7	2 5/8	66.7
1.1	27.9	6.3	2 5/8	66.7
1.2	30.5	6.8	2 5/8	66.7
1.3	33.0	7.4	2 5/8	66.7
1.4	35.6	8.0	4 3/8	111
1.5	38.1	8.6	4 3/8	111
1.6	40.6	9.1	4 3/8	111
1.7	43.1	9.6	4 3/8	111
1.75	44.5	10.0	4 3/8	111
1.8	45.7	10.2	4 3/8	111
1.9	48.3	10.8	4 3/8	111
2.0	51	11.4	4 3/8	111
2.1	53	12.0	4 3/8	111
2.2	56	12.6	4 3/8	111
2.3	58	13.2	4 3/8	111
2.4	61	13.8	4 3/8	111
2.5	64	14.4	4 3/8	111
2.6	66	15.0	4 3/8	111
2.7	69	15.6	4 3/8	111
2.8	71	16.2	4 3/8	111
2.9	74	16.8	4 3/8	111
3.0	76	17.4	4 3/8	111
3.1	79	18.0	4 3/8	111
3.2	81	18.6	4 3/8	111
3.25	83	18.9	4 3/8	111
3.3	84	19.2	4 3/8	111
3.4	86	19.9	4 3/8	111
3.5	89	20.5	4 3/8	111
3.6	91	21.1	4 3/8	111
3.7	94	21.7	4 3/8	111
3.8	97	22.3	4 3/8	111
3.9	99	23.0	4 3/8	111
4.0	102	23.6	4 3/8	111
4.1	104	24.2	4 3/8	111
4.2	106	24.8	4 3/8	111
4.3	109	25.4	4 3/8	111
4.4	112	26.0	4 3/8	111
4.5	114	26.6	4 3/8	111
4.6	116	27.1	4 3/8	111

*Other thicknesses available upon request.

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

[1]Note: Physical and thermal properties shown are based on data obtained under controlled laboratory conditions and are subject to normal manufacturing tolerances.