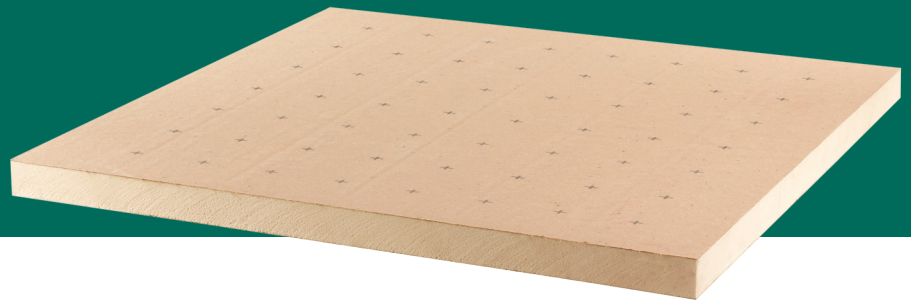


Flat NH Polyiso with GRF Facers



Description:

EnergyGuard™ NH Polyiso Insulation Board is made of glass fiber-reinforced cellulosic felt facers (GRF) bonded to a core of non-halogenated polyisocyanurate foam.

Features and Benefits:

- EnergyGuard™ NH Polyiso Insulation is better for the environment because it does not contain potentially hazardous flame-retardant chemicals
- EnergyGuard™ NH holds a Health Product Declaration (HPD), Green Circle third party recycled content certified and is a Red List Free product with a Declare label designation
- It 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
- Versatile — Approved component in single ply, BUR and modified bitumen systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid and ballasted
- Excellent dimensional stability, high moisture resistance and low water permeability

- High insulation value — polyiso insulation has the highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- Maintains the same R-Value when tested according to ASTM C1289 standard using the C518 test method at both a mean temperature of 40° C (4.4° C) and 75° F (24° C) as well as improved R-Values at 25° F (-3.9° C) over prior EnergyGuard™ NH Polyiso formulations
- Because of its light weight, this material is easy to handle on the job site and installs quickly. Easy cutting in the field provides the installer with simplified fabricating on the roof deck

Panel Characteristics:

- Available in a variety of thicknesses from 1.0" (25.4 mm) to 4.6" (116 mm) to best suit your specifications
- Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) boards
- Other EnergyGuard™ NH products available - Tapered, HD Cover Boards. See individual data sheets for more information

Sustainability:

- EnergyGuard™ NH Polyiso Insulation Board holds the polyiso industry's only specific Environmental Product Declaration (EPD) for non-halogenated products
- Sustainable design projects pursuing certifications under a green building rating system such as LEED v4, or Living Building Challenge will benefit from these certifications and listings
- 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 polyiso.org

For more information go to gaf.com/green

Declare.



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Codes & Compliance

- Meets the requirements of ASTM C1289, Type II, Class 1, Grade 2 (20 psi), and available in Grade 3 (25 psi)
- FM Approved—consult RoofNav.com for specific assemblies
- UL listed to ANSI, UL790, UL263, UL1258
- See UL Product iQ for details
- UL Evaluation Report UL ER1306-03
- Miami-Dade County Approved
- State of Florida Approved
- For additional information, contact GAF at 1-800-766-3411 or designservices@gaf.com



EnergyGuard™ NH Polyiso Thermal Values

Size*	R-Value**	Max Flute Span (in)
1.0" (25.4 mm)	5.7	2 5/8" (66.7 mm)
1.5" (38.1 mm)	8.6	4 3/8" (111 mm)
2.0" (51 mm)	11.4	4 3/8" (111 mm)
2.3" (58 mm)	13.2	4 3/8" (111 mm)
2.5" (64 mm)	14.4	4 3/8" (111 mm)
3.0" (76 mm)	17.4	4 3/8" (111 mm)
3.5" (89 mm)	20.5	4 3/8" (111 mm)
3.7" (94 mm)	21.7	4 3/8" (111 mm)
4.0" (102 mm)	23.6	4 3/8" (111 mm)
4.3" (109 mm)	25.4	4 3/8" (111 mm)
4.5" (114 mm)	26.6	4 3/8" (111 mm)
4.6" (116 mm)	27.1	4 3/8" (111 mm)

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

For optimal roof performance and to prevent thermal bridging GAF recommends installing two layers of Polyiso with staggered joints.

Typical Physical Property Data

PROPERTY	TEST METHOD	MINIMUM VALUES
Compressive Strength (<i>psi (kPa), min</i>)*	ASTM D1621	Grade 2 – 20 psi (138kPa) Grade 3 – 25 psi (172kPa)
Dimensional Stability Change (<i>length + width, max</i>)**	ASTM D2126	< 2% max
Flexural Strength (<i>psi (kPa), min</i>)	ASTM C203	40 psi
Tensile Strength (<i>psi (kPa), min</i>)	ASTM C209	≥ 500 (24kPa)
Water Absorption (<i>percent by volume, max</i>)	ASTM C209	<1.5%
Water Vapor Permeance (<i>perm, max</i>)	ASTM E96 Procedure A	<1.5 perm (57.5ng/Pa•s•m²)
Thermal Resistance	ASTM C518	R5.8 - R6.0 @ 40 °F (4.4 °C) R5.9 - R6.4 @ 75 °F (24 °C)
Service Temperature		-100° to 250 °F (-73.3° to 121.1 °C)
Flame Spread Index†	ASTM E84 / UL 723	< 75*
Smoke Developed Index	ASTM E84 / UL 723	< 200*

* Foam Core

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

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

Warnings and Limitations

- EnergyGuard™ NH Polyiso Insulation is a non-structural, non load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- EnergyGuard™ NH 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.
- 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 Polyiso Insulation will present a fire hazard. A properly installed fiberglass base sheet MUST be used over the insulation.
- Refer to PIMA Technical Bulletin No. 109 Storage and Handling Recommendations for Polyiso Roof Insulation at www.polyiso.org
- Refer to the application specifications in the current membrane manufacturer's application and specifications manual for proper installation procedures.



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