



ENERGYGUARD™ BARRIER POLYISO INSULATION

Description

EnergyGuard™ Barrier Polyiso Insulation consists of coated glass-fiber facers laminated to a closed-cell polyisocyanurate foam core.

- EnergyGuard™ Barrier Polyiso Insulation achieves an ANSI/UL 790 Class A Roofing Fire Resistance Rating over combustible decks with a ½" (12.7 mm) board thickness. Available in 4' x 4' (1.21 m x 1.21 m) or 4' x 8' (1.21 m x 2.44 m) and in thicknesses ranging from ½" to 4.6" (12.7 mm to 116 mm).
- When properly installed, it is suitable for use under built-up, modified bitumen, and most single-ply roofing systems. Consult ul.com for specific assemblies or contact Technical Support at 1-800-766-3411. Refer to the current GAF published application and specifications manual available at gaf.com for proper installation procedures.

Advantages

- High insulation value — Highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness.
- Manufactured with EPA-compliant blowing agents.

- Excellent dimensional stability.
- Low water permeability — Low overall perm rating.
- High moisture resistance and dimensional stability help boards maintain their physical and insulating properties.
- Easy to handle and fast to install — Because of its light weight, this material is easy to handle on the jobsite and installs quickly. Easy cutting in the field provides the installer with simplified fabricating on the roof deck. Minimizes on-the-job damage.

Precautions

For instructions on proper usage of this product, please refer to the *GAF Roofing System Overview & General Requirements Manual*, available at gaf.com, and the product label.

For specific fire and other safety information, see SDS (Safety Data Sheet) available at gaf.com.

EnergyGuard™ Barrier Polyiso Insulation should be kept dry and protected from the elements by raising it approximately 3" (76 mm) above the ground and covering it with a waterproof, breathable canvas tarpaulin. No more insulation should be installed than can be completely covered with roofing membrane on the same day. Refer to the product label for further information regarding material storage and protection.

Code Compliance

- UL Certified (to view certification data, please visit UL Product iQ, UL's database for certification information, at <https://iq.ulprospector.com/info/>).

Thermal and Physical Characteristics¹

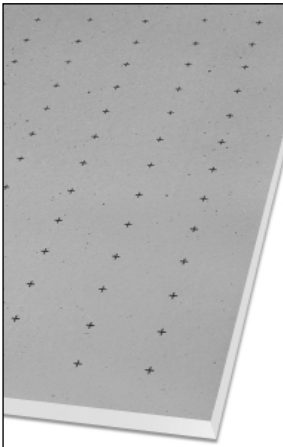
Size*		LTTR** R-Value	Max. Flute Spanability	
Inches	mm		Inches	mm
0.5	12.7	2.9	2 5/8	66.7
1.0	25.4	5.7	2 5/8	66.7
1.1	27.9	6.3	2 5/8	66.7
1.2	30.5	6.8	2 5/8	66.7
1.3	33.0	7.4	2 5/8	66.7
1.4	35.6	8.0	4 3/8	111
1.5	38.1	8.6	4 3/8	111
1.6	40.6	9.1	4 3/8	111
1.7	43.1	9.7	4 3/8	111
1.75	44.5	10.0	4 3/8	111
1.8	45.7	10.3	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.

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

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Code Compliance



ASTM C1289 Type II, Class 2, Grade 2*

*Stated Dimensional Stability Tolerance: Board thickness shall not diminish by more than 2% max. Grade 3 – 25 psi available.

Typical Physical Properties

Property	Value	Test Method
Water Absorption, % by Volume – 2 hours (under 1" [25.4 mm] water)	1.5 max.	ASTM C209
Dimensional Stability Change, 7 days @158°F (70°C), 97% RH • Length + Width	<2%	ASTM D2126
Compression Strength — psi (kPa)	25 (172) nom. Grade 3 20 (138) nom. Grade 2	ASTM D1621
Tensile Strength — psf (kPa)	≥ 500 (23.9)	ASTM C209
Moisture Vapor Transmission ¹	<1.5 perm (57.5ng/Pa•s•m ²)	ASTM E96 (Procedure A)
Flame Spread ^{1,2}	<75	ASTM E84
Service Temperature	-100 to 250°F (-73.3 to 121.1°C)	
Resistance To Mold*	Pass (10)	ASTM D3273

¹Foam core only.

²These 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.