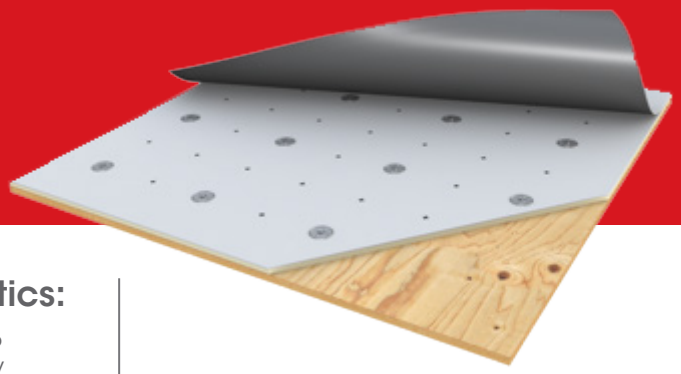
EnergyGuard™ Barrier Polyiso Insulation

A Multi-family Solution



Challenge:

As codes continue to change, and R-value requirements rise, what product solutions are available for direct to combustible deck applications without the use of a fire rated slip sheet?

Why EnergyGuard™ Barrier Polyiso Insulation:

- Achieves UL's highest fire rating — UL Class A Fire Rating. EnergyGuard™ Barrier Polyiso Insulation and EnergyGuard™ Barrier HD Polyiso Cover Board can be installed directly to a combustible deck without the need for a fire-rated slip sheet at a minimum thickness of ½" and achieve a UL Class A Fire-Rated Assembly with TPO or PVC.[3]
- Moisture resistance — EnergyGuard™ Barrier Polyiso Insulation products are manufactured with CGF facers which offer moisture resistance, low water permeability, and meet ASTM D3272 requirements resistance to mold growth[1]
- Compatible with solvent and water-based adhesives
- Reduced condensation potential — when installed in two or more layers with staggered joints
- Versatility — approved component in single ply, BUR, and modified bitumen systems with a variety of attachment methods: mechanically attached, fully adhered, loose-laid, and ballasted
- Highest R-value per inch compared to non-polyiso insulation options when you need to increase due to code compliance — R-value 5.7 per inch for flat panels, and 2.5 for ½" HD polyiso cover boards
- Ease of Installation — lightweight and easy-to-cut with a utility knife
- Guarantees — covered under GAF's system guarantees. See sample guarantees at gaf.com for complete coverage and restrictions.
- Eliminates the need for Gypsum Cover boards — EnergyGuard™ Barrier Polyiso Cover Boards offer UL Class A approval, 2.5 R-value, lighter weight, and are easier to cut and maneuver on the job site

Panel Characteristics:

- EnergyGuard™ Barrier Polyiso Insulation comes in a variety of thicknesses to help meet your job specifications
- Low-temperature stable R-values available in the EnergyGuard™ Barrier NH product for flat and tapered panels[2]

Code Compliance and Sustainability:

Refer to individual barrier product data sheets on gaf.com for code compliance of specific products referenced.

- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs
- Zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- Potential LEED® Credits for polyiso use
- State of Florida Approved[4]
- Environmental Product Declaration (EPD) (Product-specific)
- UL GREENGUARD Gold
- EnergyGuard™ NH Barrier products can contribute towards sustainability certifications under a green building rating system such as LEED V4, or Living Building Challenge

[1] GAF warranties and guarantees do not warrant or guarantee moisture resistance or provide coverage against mold or other biological growth. Refer to gaf.com for more information on warranty and guarantee coverage and restrictions.

[2] Maintains the same R-value when tested according to ASTM C1289 standard using the C518 test method and both a mean temperature of 40°F and 75°F.

[3] See UL Product iQ for actual listings.

[4] Cedar City, UT, and Statesboro, GA, only.

EnergyGuard™ Barrier Polyiso Insulation Thermal Values:

Size*	R-Value**	Max Flute Span (in)
0.5" (12.7 mm)	2.9	2 5/8" (66.7 mm)
1.0" (25.4 mm)	5.7	2 5/8" (66.7 mm)
1.2" (30.5 mm)	6.8	2 5/8" (66.7 mm)
1.5" (38.1 mm)	8.6	4 3/8" (111 mm)
1.75" (44.5 mm)	10.0	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)
2.6" (66 mm)	15.0	4 3/8" (111 mm)
2.8" (71 mm)	16.2	4 3/8" (111 mm)
3.0" (76 mm)	17.4	4 3/8" (111 mm)
3.2" (81 mm)	18.6	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" (117 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.

EnergyGuard™ Barrier HD Polyiso Cover Board Thermal Value:

Size	R-Value
1/2"	2.5

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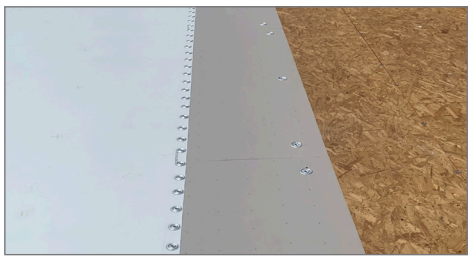
We protect what matters most™

EnergyGuard™ Barrier Polyiso Insulation



EnergyGuard™ Barrier Polyiso Insulation

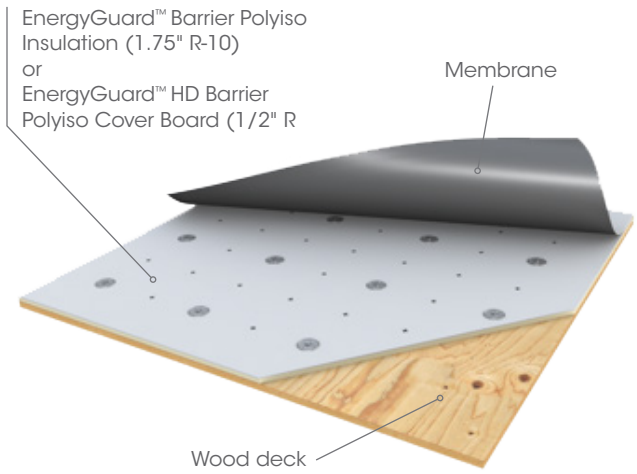
Applications:

- TPO and PVC — Adhered, Mechanically attached, induction-welded
- Asphaltic Applications — modified bitumen and built-up roofing

System considerations:

- EnergyGuard™ Barrier Polyiso Insulation and EnergyGuard™ Barrier HD Polyiso Cover Board can be installed directly to a combustible deck without the need for a fire rated slip sheet at a minimum thickness of ½" and achieve a UL Class A Fire-Rated Assembly with TPO or PVC
- To meet your sustainability goals, EnergyGuard™ NH Barrier Polyiso, and cover boards are available with non-halogenated flame retardants (TCPP-free)
- Incorporating EnergyGuard™ HD Barrier Polyiso Cover Board contributes R-2.5 to the overall roof system providing the option to minimize the polyiso layers below the cover board

Typical assembly:



EnergyGuard™ HD Barrier Polyiso Cover Board

EnergyGuard™ Barrier Product Solutions

Product Name	ASTM Standard	4' x 4'	4' x 8'	Flat Thickness Availability	Resistance to Mold[1]	Non-Halogenated Flame Retardant Formulation
EnergyGuard™ Barrier Polyiso Insulation	ASTM C1289 Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25 psi)	X	X	1/2" – 4.6"	X	
EnergyGuard™ Barrier HD Polyiso Cover Board	ASTM C1289 Type II, Class 4, Grade 1 (80 psi min – 109 psi max)	X	X	1/2"	X	
EnergyGuard™ NH Barrier Polyiso Insulation	ASTM C1289 Type II, Class 2, Grade 2 (20 psi) or Grade 3 (25 psi)	X	X	1/2" – 4.6"	X	X
EnergyGuard™ NH HD Barrier Polyiso Cover Board	ASTM C1289 Type II Class 4, Grade 1 (80 psi min – 109 psi max)	X	X	1/2"	X	X

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