

We protect what matters most[™]



gaf.com

Quality. Value. Performance.

How EnergyGuard[®] Polyiso & EnergyGuard[®] NH Polyiso can help you solve many of your roofing challenges



Thermal... EnergyGuard[™] Polyiso & EnergyGuard[™] NH Polyiso – Energy savings

Studies have shown that insulation is one of the quickest and easiest ways to improve the energy efficiency of a building. EnergyGuard[™] Polyiso and EnergyGuard[™] NH Polyiso Insulation provide one of the highest insulation R-values, compared to any other type of insulation of equal thickness, which makes them the best solution.



Fire... EnergyGuard[™] Barrier Polyiso & EnergyGuard[™] NH Barrier Polyiso – High fire rating

Meeting a fire code in a local area is a requirement of almost any roofing system. EnergyGuard[™] Barrier Polyiso and EnergyGuard[™] NH Barrier Polyiso meet that need since they are tested and approved by UL. EnergyGuard[™] Barrier polyiso can achieve an ANSI/UL 790 Class A rating over a wood deck with just 1/2" (12.7 mm) of polyiso and EnergyGuard[™] NH Barrier Polyiso is the only non-halogenated polyiso that can achieve an ANSI/UL 790 Class A rating over a wood deck with just 1" (25.4 mm) of polyiso.



Environment... EnergyGuard[™] NH Polyiso Product Lineup – Sustainable system designs

Sustainable system designs are helping improve our environment. EnergyGuard[™] NH Polyiso offers a full lineup of products in paper faced, coated glass faced, and various compressive strengths. GAF is the first to have an EPD (Environmental Product Declaration) on our EnergyGuard[™] NH product and was first to market with a high-density cover board using non-halogenated flame retardants, our EnergyGuard[™] NH HD polyiso. All of our non-halogenated products are available nationwide.



Water... EnergyGuard[™] & EnergyGuard[™] NH Tapered Polyiso – Water management

Proper water management off a low-slope roof is essential to getting longevity out of your roofing system. Ponding water can attract dirt and debris that can degrade your system over time. We offer free tapered design services to provide you with the most cost-effective design, reducing material cost and waste along with precise layouts.



GAF EnergyGuard[®] Polyiso Roof Insulation Products

EnergyGuard[™] Polyiso and EnergyGuard[™] NH Polyiso

Building methods and energy codes are constantly changing but GAF EnergyGuard[™] Polyiso and EnergyGuard[™] NH Polyiso provide the constant quality, performance, and lineup of products offering a solution to meet the ever-changing low-slope market needs.

EnergyGuard[™] Polyiso and EnergyGuard[™] NH Polyiso are designed for use in practically any low-slope roofing application including built-up, modified bitumen, and single-ply roofing systems.

What is the difference between EnergyGuard[™] Polyiso Insulation products and EnergyGuard[™] NH Polyiso Insulation products? They both offer one of the highest insulating R-values on the market to help save on energy costs, but EnergyGuard[™] NH Polyiso uses a new, innovative chemical composition that does not contain any halogenated flame-retardant chemicals. It supports the GAF commitment to providing architects, contractors, and building owners with affordable products that help them meet their sustainable and environmental design goals.

Features and Benefits

- Designed for use in practically any low-slope roofing application, including BUR, mod bit, and single-ply systems
- Offers various facers and compressive strength options depending on your specification needs
- Also offers one of the highest insulation R-values compared to any other other type of insulation product of equivalent thickness
- Meets FM4450/4470 (consult RoofNav.com for specific assemblies) and is UL Certified (see UL Online Certification Directory for details)
- Meets ASTM C1289 Type II, Class 1, Grade 2 (20 psi)[†], and available in Grade 3 (25 psi)
- Low water permeability means a lower overall perm rating than many conventional insulation boards
- High moisture resistance and no capillarity creates stability to maintain its physical and insulating characteristics
- Its light weight makes this material easier to handle on the jobsite and installs faster
- Easier cutting in the field provides the installer with simplified fabricating on the roof deck, minimizing on-the-job damage
- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and virtually no global warming potential (GWP)
- Available in a variety of thicknesses from .5" (12.7 mm) to 4.6" (116 mm) to best suit your needs
- Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) boards
- Tapered panels are also available 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

ENERGYGUARD[™] POLYISO INSULATION CUSTOM CUT



EnergyGuard[™] Polyiso Insulation custom cut for flute-filler applications is designed to fill the flutes in standing seam or lap seam metal roof retrofit systems. It helps improve dimensional stability as well as provides additional R-value to an existing roof deck.

EnergyGuard[™] Polyiso Insulation custom cut for flute-filler applications is available with either straight-cut or bevel-cut edges in order to suit a variety of metal roof retrofit applications.



EnergyGuard Tapered **Polyiso Insulation**

Get the Longevity You Deserve out of Your Roof!

EnergyGuard[™] Tapered Polyiso Insulation has a thermally efficient polyisocyanurate core bonded between glass fiber-reinforced cellulosic felt facers. Also available in EnergyGuard[™] Ultra, EnergyGuard[™] NH Ultra, EnergyGuard[™] Barrier, and EnergyGuard[™] NH Barrier Polyiso. It is readily available in various slope profiles such as the most popular and efficient tapers: 1/8:12 (1%), 1/4:12 (2%), and 1/2:12 (4%).

Tapered polyiso insulation provides a logical and economical answer for roofs that do not permit adequate positive drainage like low-slope roofs. When correctly installed, tapered insulation helps eliminate problems due to ponding water and can extend the longevity of your lowslope roofing system.

GAF offers a full lineup of tapered panels to provide you with different options to help you create the best design for your roofing project.

 Meets ASTM C1289 Type II, Class 1, Grade 2 (20 psi)[†] and in Grade 3 (25 psi)

	BOARD STYLE	DIMENSIONS IN INCHES	AVERAGE THICKNESS	BD FEET PER PANEL
4	AA	0.5" - 1"	0.75"	12
	A	1" - 1.5"	1.25"	20
	В	1.5" - 2"	1.75"	28
1/8	С	2" - 2.5"	2.25"	36
1/0	* D	2.5" - 3"	2.75"	44
	* E	3" - 3.5"	3.25"	52
	* F	3.5" - 4"	3.75"	60
+	* FF	4" - 4.5"	4.25"	68
4	Х	0.5" - 1.5"	1"	16
	Y	1.5" - 2.5"	2"	32
1	* Z	2.5" - 3.5"	3"	48
1/4	* ZZ	3.5" - 4.5"	4"	64
1	G	1" - 2"	1.5"	24
	Н	2" - 3"	2.5"	40
+	* 1	3" - 4"	3.5"	56
4	Q	0.5" - 2.5"	1.5"	24
1/2	* QQ	2.5" - 4.5"	3.5"	56
+	* XX	1" - 3"	2"	32
4	* JJ	0.5" - 1.25"	0.875"	14
	* KK	1.25" - 2"	1.625"	26
	* LL	2" - 2.75"	2.375"	38
, Mac	* MM	2.75" - 3.5"	3.125"	50
3/16	* J	1" - 1.75"	1.375"	22
	* K	1.75" - 2.5"	2.125"	34
	* L	2.5" - 3.25"	2.875"	46
+	* M	3.25" - 4"	3.625"	20 28 36 44 52 60 68 16 32 48 64 40 56 24 40 56 24 56 32 14 26 38 50 22 34
4	*SS	0.5" - 2"	1.25"	20
3/8	*TT	2" - 3.5"	2.75"	44
+	*S	1" - 2.5"	1.75"	28
1	1	0.5"75"	0.625"	10
	2	.75" - 1"	0.875"	14
	3	1" - 1.25"	1.125"	18
116	4	1.25" - 1.5"	1.375"	22
/16	5	1.5" - 1.75"	1.625"	26
	6	1.75" - 2"	1.875"	30
	*7	2" - 2.25"	2.125"	34
1	* 8	2.25" - 2.5"	2.375"	



How can EnergyGuard[™] Tapered Polyiso Insulation help you save on materials, adhesive, and more importantly labor?







1/4" SLOPE TAPERED ISO (4'x 4' PANELS) 3 PANEL SYSTEM - NOT TO SCALE

An extended panel design requires up to approximately 30% less applied squares which translates to up to approximately 30% less polyiso material handled and up to approximately 30% less adhesive, which results in less labor.

The GAF Tapered Design Group offers a free service that helps you save time with a fast and hassle-free service that assists you in creating a cost-effective tapered design system.



Let us take the hassle out of your job For more information, contact tdg@gaf.com.

Choosing the Right Polyiso Insulation for Your Roofing System

	EnergyGuard™	Polyiso	NH Polyiso	Ultra
ч а	New	•	•	٠
Roof Type	Re-cover	•	•	٠
	Retrofit (metal)	•	•	٠
Attribute/Benefit	High R-value	•	•	٠
	Lightweight; easy to handle and cut	•	•	٠
	Contains no CFCs or HCFCs; has zero ODP and is EPA compliant	•	•	٠
	Reinforced cellulosic felt facers	•	•	
	Coated glass fiber			٠
	Premium coated glass fiber			
	Flat board product in 4'x4' (1.21m x 1.21m) or 4'x8' (1.21m x 2.44m)	•	٠	٠
	Tapered board product (4'x4' [1.21m x 1.21m] only)	•	•	٠
	Suitable for High-traffic roof			٠
S	Suitable for High-humidity structure			•
nge	Resistance to mold (ASTM D3273)			٠
Roof Challenges	Achieves an ANSI/UL 790 Class A roofing fire rating over combustible decks with a .5" (12.7 mm) Barrier and 1" (25.4 mm) of NH Barrier board thickness			
	Approved component of FM Class 1-SH (Hail) Rated Assembly	induction induction induction handle and cut induction induction induction induction induction induction	•	٠
nce	C1289/Type II/Class 1/Grade 2 (20 psi)** and Grade 3 (25 psi)	•	٠	
	C1289/Type II/Class 2/Grade 2 (20 psi)** and Grade 3 (25 psi)			٠
plia	C1289/Type II/Class 4/Grade 1			
lmo	C1289/Type II/Class 4/Grade 2			
ss C	FM Approved [†]	•	•	٠
Codes Complia	UL Certified ^{††}	•	•	٠
0	Miami-Dade County Product Control Approved	•	•	٠
	State of Florida Approved	•	•	٠



Choosing the right polyiso for a roofing system can be confusing. There are many different types of facers and attributes to meet the required energy codes and specifications. So which type of polyiso meets the needs of the roofing system for your building?

NH Ultra	Barrier	NH Barrier	HD/HD Plus	NH HD/HD Plus
٠	•	•	•	•
٠	•	•	٠	•
٠	•	•	٠	•
•	•	•	٠	•
•	•	•	•	•
٠	•	٠	٠	٠
•	•	• (bottom)		
	•	• (top)	•	•
٠	•	•	٠	•
٠	•	٠		
•	•	•	٠	•
•	•	•	٠	•
•	•	•	٠	•
	•	٠		
٠			٠	٠
•	•	٠		
			•	•
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٠	•	•	٠	•
٠			٠	٠
•			•	•

*UL Class A roofing fire rating over combustible deck when used with single-ply TPO, a total of at least 3" (76 mm) of EnergyGuardTM Ultra is required; a Class B fire rating is also obtained when using at least a single layer of 1.5" (38.1 mm).

*Stated dimensional stability tolerance: board thickness shall not diminish by more than 2% max. †Refer to FM Approvals RoofNav for actual assemblies.

††See UL Online Certification Directory for actual details.

NOTE: With the exception of EnergyGuard[™] HD/HD Plus Polyiso and EnergyGuard[™] NH HD/NH HD Plus Polyiso, stated dimensional stability tolerance: board thickness shall not diminish by more than 2% max. Some membrane systems may require a non-polyisocyanurate cover board, the use of GAFGLAS® Stratavent® Perforated Venting Base Sheet, or a mechanically attached base sheet over polyisocyanurate insulations. Check the membrane specification for installation, code, and warranty requirements.

EnergyGuard[™] Polyiso Insulation Product Lineup

ENERGYGUARD™ POLYISO INSULATION





[†]Stated dimensional stability tolerance: board thickness shall not diminish by more than 2% max.

EnergyGuard[™] Polyiso provides you with an economical and cost-effective lineup of products to address almost any low-slope roofing assembly.

EnergyGuard™ Ultra Tapered Polyiso Insulation (Sloped)	EnergyGuard [™] HD Polyiso Insulation (High Density)	EnergyGuard [™] HD PLUS Polyiso Insulation	
			Product
Economical answer for roofs that do not permit adequate positive drainage	Ideal for low-slope roofs with high foot traffic or that are prone to hail events	Ideal for low-slope roofs with high foot traffic or that are prone to hail events	Primary Application Method
 Consists of coated glass facers bonded to a core of isocyanurate foam Designed for use over structural roof decks to provide a slope to drain for proper water management and to provide thermally efficient insulation 	 R-value of 2.5 - the highest of any competitive cover board 80 psi compressive strength Consists of durable coated glass facers bonded to a core of isocyanurate foam 	 R-value of 2.5 - the highest of any competitive cover board 110 psi compressive strength Consists of durable coated glass facers bonded to a core of isocyanurate foam 	Advantages
 Available in various slope profiles such as the most popular and efficient tapers, 1/8:12 (1%), 1/4:12 (2%), and 1/2:12 (4%) Available in 4' x 4' (1.21 m x 1.21 m) 	 1/2" (12.7 mm) thick high-density polyiso cover board Lightweight at 11 lb. (4.99 kg) per 4' x 8' (1.21 m x 2.44 m) board 	 1/2" (12.7 mm) thick high-density polyiso cover board Lightweight at 13 lb. (5.90 kg) per 4' x 8' (1.21 m x 2.44 m) board 	Product Specifications
C1289/Type II/Class 2/ Grade 2 (20 psi) [†] and Grade 3 (25 psi)	C1289/Type 2/Class 4/Grade 1	C1289/Type 2/Class 4/Grade 2	ASTM
LIL Certified (see UL Online Certification Directory for details) Miami-Dade County Product Control approved State of Florida approved	APPROVED UL Certified (see UL Online Certification Directory for details) Miami-Dade County Product Control approved State of Florida approved	LEVALUATE: LUL Certified (see UL Online Certification Directory for details) Miami-Dade County Product Control approved State of Florida approved	Applicable Standards

EnergyGuard[™] NH Polyiso Insulation Product Lineup

	ENERGYGUARD [™] NH POLYISO INSULATION				
	EnergyGuard [™] NH Polyiso Insulation	EnergyGuard [™] NH Ultra Polyiso Insulation	EnergyGuard™ NH Barrier Polyiso Insulation	EnergyGuard [™] NH Tapered Polyiso Insulation (Sloped)	
Product					
Primary Application Method	Almost any slope application requiring increased R-value and stable substrate	Ideal for low-slope roofing that is exposed to excessive moisture from a building	For projects needing a UL Class A rating with 1" (25.4 mm) of insulation over a combustible deck	Economical answer for roofs that do not permit adequate positive drainage	
Advantages	 Consists of glass fiber-reinforced cellulosic felt facers bonded to a core of non-halogenated isocyanurate foam Holds a Health Product Declaration (HPD), is GreenCircle third-party Recycled Content Certified, and is a Red List Free product with a Declare label designation and has an EPD (Environmental Product Declaration) Ideal for sustainable design projects pursuing certifications under a green building rating system such as LEED® v4 or Living Building Challenge 	 Consists of coated glass facers bonded to a core of non-halogenated isocyanurate foam Holds a Health Product Declaration (HPD) and is a Red List Free product with a Declare label designation Ideal for sustainable design projects pursuing certifications under a green building rating system such as LEED[®] v4 or Living Building Challenge 	 Consists of coated glass facers laminated to a core of non-halogenated isocyanurate foam Holds a Health Product Declaration (HPD) and is a Red List Free product with a Declare label designation Only polyiso board on the market that achieves an ANSI/UL 790 Class A roofing fire rating over combustible decks with a 1" (25.4 mm) board thickness using a non- halogenated chemical 	 Consists of glass fiber- reinforced cellulosic felt facers bonded to a core of isocyanurate foam Designed for use over structural roof decks to provide a slope to drain for proper water management and to provide thermally efficient insulation Ideal for sustainable design pr ojects pursuing certifications under a green building rating system such as LEED® v4 or Living Building Challenge 	
Product Specifications	 Available in a variety of thicknesses from 1" (25.4 mm) to 4.6" (116 mm) Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) 	 Available in a variety of thicknesses from 0.5" (12.7 mm) to 4.6" (116 mm) Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) 	 Available in a variety of thicknesses from 1" (25.4 mm) to 4.6" (116 mm) Available in 4' x 4' (1.21 m x 1.21 m) and 4' x 8' (1.21 m x 2.44 m) 	 Available in various slope profiles such as the most popular and efficient tapers, 1/8:12 (1%), 1/4:12 (2%), and 1/2:12 (4%) Available in 4' x 4' (1.21 m x 1.21 m) 	
ASTM	C1289/Type II/Class 1/ Grade 2 (20 psi) [†] and Grade 3 (25 psi)	C1289/Type II/Class 2/ Grade 2 (20 psi)† and Grade 3 (25 psi)	C1289/Type II/Class 2/ Grade 2 (20 psi)† and Grade 3 (25 psi)	C1289/Type II/Class 1/ Grade 2 (20 psi) [†] and Grade 3 (25 psi)	
Applicable Standards	APPROVED UL Certified (see UL Online Certification Directory for details)	APPROVED UL Certified (see UL Online Certification Directory for details) UL Class A - Min. 3" (76 mm)	UL Certified (see UL Online Certification Directory for details)	APPROVED UL Certified (see UL Online Certification Directory for details)	
Other Certifications	Declare. PIMALINARIA CALIFORNIA	Declare.	Declare.	Declare.	

[†]Stated dimensional stability tolerance: board thickness shall not diminish by more than 2% max.

Note: LEED® — an acronym for Leadership in Energy and Environmental Design™ — is a registered trademark of the U.S. Green Building Council.

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EnergyGuard[™] NH Polyiso provides all the quality and performance you expect from polyiso, and due to its unique and innovative chemical composition it helps in attaining green certifications, such as LEED[®] v4, for a sustainable design.

EnergyGuard™ NH Ultra Tapered Polyiso Insulation	EnergyGuard [™] NH HD Polyiso Insulation (High Density)	EnergyGuard [™] NH HD PLUS Polyiso Insulation	
			Product
Economical answer for roofs that do not permit adequate positive drainage	Ideal for low-slope roofs with high foot traffic or that are prone to hail events	Ideal for low-slope roofs with high foot traffic or that are prone to hail events	Primary Application Method
 Consists of coated glass facers bonded to a core of isocyanurate foam Designed for use over structural roof decks to provide a slope to drain for proper water management and to provide thermally efficient insulation Ideal for sustainable design projects pursuing certifications under a green building rating system such as LEED® v4 or Living Building Challenge 	 R-value of 2.5 - the highest of any competitive cover board 80 psi compressive strength Consists of durable coated glass facers bonded to a core of isocyanurate foam Holds a Health Product Declaration (HPD) and is a Red List Free product with a Declare label designation Ideal for sustainable design projects pursuing certifications under a green building rating system such as LEED® v4 or Living Building Challenge 	 R-value of 2.5 - the highest of any competitive cover board 110 psi compressive strength Consists of durable coated glass facers bonded to a core of isocyanurate foam Holds a Health Product Declaration (HPD) and is a Red List Free product with a Declare label designation Ideal for sustainable design projects pursuing certifications under a green building rating system such as LEED® v4 or Living Building Challenge 	Advantages
 Available in various slope profiles such as the most popular and efficient tapers, 1/8:12 (1%), 1/4:12 (2%), and 1/2:12 (4%) Available in 4' x 4' (1.21 m x 1.21 m) 	 1/2" (12.7 mm) thick high-density polyiso cover board Lightweight at 11 lb. (4.99 kg) per 4' x 8' (1.21 m x 2.44 m) board 	 1/2" (12.7 mm) thick high-density polyiso cover board Lightweight at 13 lb. (5.90 kg) per 4' x 8' (1.21 m x 2.44 m) board 	Product Specifications
C1289/Type II/Class 1/ Grade 2 (20 psi)† and Grade 3 (25 psi)	C1289/Type 2/Class 4/Grade 1	C1289/Type 2/Class 4/Grade 2	ASTM
APPROVED UL Certified (see UL Online Certification Directory for details)	APPROVED UL Certified (see UL Online Certification Directory for details)	APPROVED UL Certified (see UL Online Certification Directory for details)	Applicable Standards
Declare.	VERSION 2.0 Declare	VERSION 2.0 Declare	Other Certifications

Quality You Can Trust... Through State-of-the-Art Manufacturing



Unique Expertise

Newest and most technologically advanced plants and equipment in the industry

Continuous investment in operational efficiency, increased quality, and sustainability

Operations leaders with experience in running manufacturing plants





We protect what matters most[™]