

## Cover Board Products







# Experience the **Carlisle Difference**

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Welcome to the pinnacle of roofing innovation where protection, durability, and energy efficiency converge — Carlisle SynTec Systems' comprehensive selection of high-performance roofing cover boards. Our products offer a variety of benefits designed to meet diverse roofing needs, including the thermal resistance of polyiso, the exceptional bond strength of gypsum, the versatile and lightweight nature of EPS, the moisture resistance of XPS, the natural breathability of wood fiber, the multifaceted prowess of composite boards, and beyond.

These premium cover boards not only extend the lifespan of your roofing systems but also enhance their structural integrity and energy-saving capabilities. Each material is crafted to provide specific benefits, ensuring that you can select the perfect solution tailored to the unique requirements of your project.

Upgrade your roofing standards with our cutting-edge cover boards and experience the ultimate fusion of quality and performance.

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# Picking Your Product

Selecting the appropriate roofing cover board is crucial for ensuring the longevity and performance of your roofing system. Refer to the matrix below to compare the features, benefits, and suitability of various cover board options to meet your specific roofing needs.

Overall Comparison Matrix					
Product	Insulating	Compressive Strength	Sustainability	Hail Rating	Portability
Polyiso Cover Boards and Composites	+	✓	—	✓	+
Gypsum	—	+	—	✓	—
Other	✓	—	✓	✓	✓

— = Good    ✓ = Better    + = Best

## HOW WE CLASSIFIED PRODUCTS:

**Insulating:** The average of the highest R-values of all products in each category

Good: Below 2                      Better: 2 – 5                      Best: Above 5

**Compressive Strength:** The average PSI of all products in each category

Good: Below 100                      Better: 100 – 500                      Best: Above 500

**Sustainability:** The average recycled content of all products in each category

Good: Below 15                      Better: 15 – 30                      Best: Above 30

**Hail Rating:** The average hail rating of all products in each category

Good: Moderate                      Better: Severe                      Best: Very Severe

**Portability:** The average of the highest weight of all products in each category

Good: Above 80 lbs                      Better: 80 – 20 lbs                      Best: Below 20 lbs





# Polyiso Cover Boards and Composites

Product	Insulating	Compressive Strength	Sustainability	Hail Rating	Portability
InsulBase™ HD	✓	—	+	✓	+
SecurShield® HD	✓	✓	—	✓	+
SecurShield HD Plus	✓	✓	—	✓	+
SecurShield HD RapidLock	✓	✓	—	✓	+
SecurShield HD Composite	+	✓	—	+	✓
SecurShield HD Composite RapidLock	+	✓	—	+	✓
StormBase™ Composite	+	Core Only	—	+	✓

— = Good

✓ = Better

+

## INSULBASE HD

InsulBase HD is a polyiso cover board bonded to glass-reinforced facers on both sides which can be used in both re-roofing and new construction.

- » This product is for induction-welded or mechanically fastened systems only
- » Polyiso Eco option available with 5 – 49% bio-content

**Available Thickness:** ½"

**Available Panel Sizes:** 4' x 8' or 4' x 4'

**Weight per 4' x 8' Board (lbs.):** 8.69

**R-value:** 2.5

**PSI:** 80

**Recycled Content:** 39.5%

**Membrane Attachment Type:** Mechanically Fastened

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Severe Hail

[Learn more about Polyiso Eco today!](#)



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## SECURSHIELD HD

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SecurShield HD is a polyiso cover board laminated to a coated glass fiber-mat facer that can be used in re-roofing and new construction.

- » This product comes standard with ReadyFlash® Technology that allows for greater adhesive flash-off control
- » Polyiso Eco option available with 5 – 49% bio-content

**Available Thickness:** ½"

**Available Panel Sizes:** 4' x 8' or 4' x 4'

**Weight per 4' x 8' Board (lbs.):** 12.4

**R-value:** 2.5

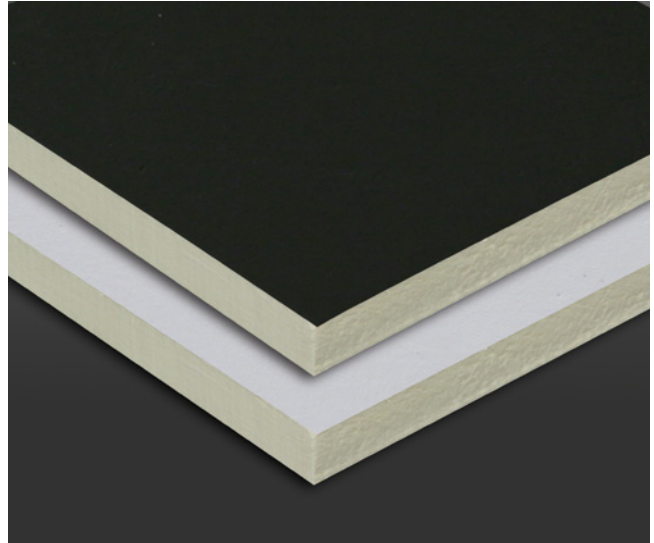
**PSI:** 109

**Recycled Content:** 8.2%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 16

**Hail Rating:** Severe Hail



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## SECURSHIELD HD PLUS

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SecurShield HD Plus is a polyiso cover board laminated to a coated glass fiber-mat facer with a scrim on one side of the board.

- » Industry-leading 8 fasteners per 4' x 8' board to meet FM 1-90
- » Can be installed in corners and perimeters per FM requirements

**Available Thickness:** ½"

**Available Panel Sizes:** 4' x 4' and 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 13.33

**R-value:** 2.5

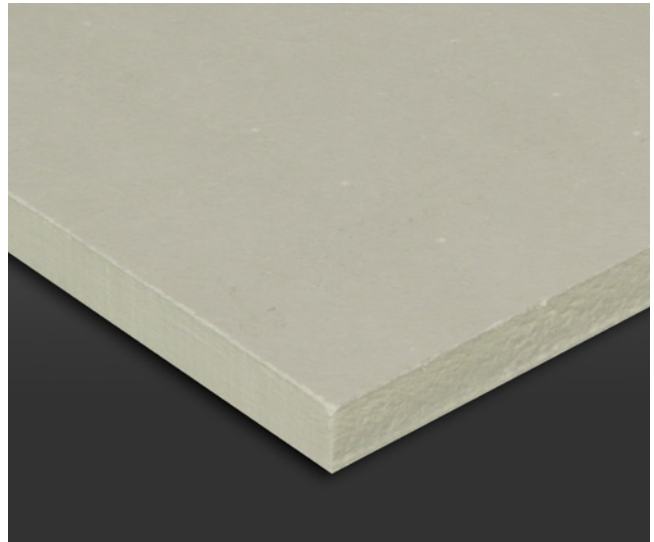
**PSI:** 109

**Recycled Content:** 8.2%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 8

**Hail Rating:** Severe Hail



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## SECURSHIELD HD RAPIDLOCK

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SecurShield HD RapidLock is a hook-and-loop attachment system that can be utilized with Carlisle's FleeceBACK® EPDM, TPO, PVC or KEE HP membranes.

- » No adhesives necessary for membrane attachment
- » No temperature restrictions for installation

**Available Thickness:** ½"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 12.3

**R-value:** 2.5

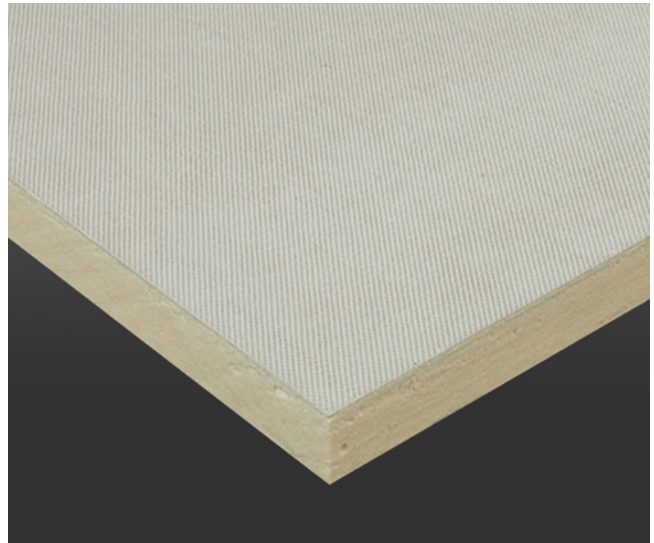
**PSI:** 109

**Recycled Content:** 9%

**Membrane Attachment Type:** Hook-and-loop with Carlisle's FleeceBACK RapidLock membranes

**Membrane FM 1-90 Fastener Approval:** 16 per 4' x 8' board

**Hail Rating:** Severe Hail



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## SECURSHIELD HD COMPOSITE

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SecurShield HD Composite is a composite insulation panel comprised of ½" HD polyiso cover board laminated to SecurShield rigid polyiso insulation.

- » Single-component solution reducing inter-ply adhesives
- » FM uplift approval ratings up to 300 psf over steel decks

**Available Thicknesses:** 1.5", 1.8", 2.0", 2.5" 3.0", 3.5", 3.6", 4.0"

**Available Panel Sizes:** 47.5" x 95.5" or 47.5" x 47.5"

**Weight per 47.5" x 95.5" Board (lbs.):** 19.33 – 32.3

**R-value:** 8.2 – 23.0

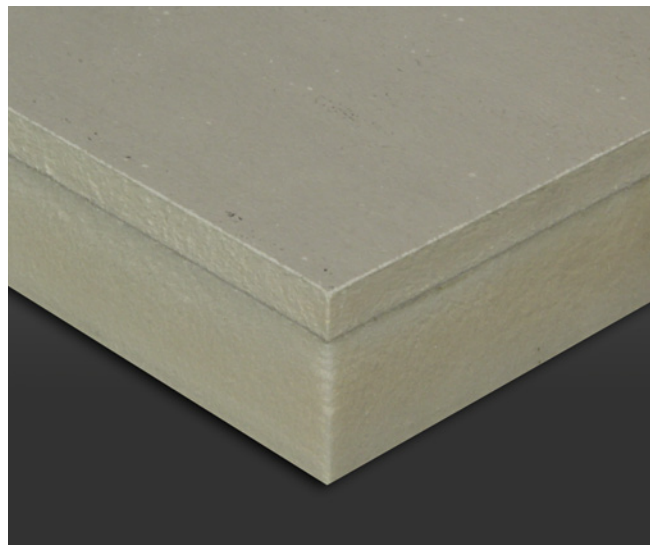
**PSI:** 109

**Recycled Content:** <9%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 6 fasteners/board with a minimum 2" panel thickness

**Hail Rating:** Very Severe Hail





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## SECURSHIELD HD COMPOSITE RAPIDLOCK

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SecurShield HD Composite RapidLock is a hook-and-loop attachment system composed of a ½" HD polyiso cover board laminated to SecurShield rigid polyiso insulation that can be utilized with Carlisle's FleeceBACK EPDM, TPO, PVC or KEE HP membranes.

- » No adhesives necessary for membrane attachment
- » No temperature restrictions for installation

**Available Thicknesses:** 2.0", 2.5", 3.0", 3.5", 4.0"

**Available Panel Sizes:** 47.5" x 95.5" or 47.5" x 47.5"

**Weight per 47.5" x 95.5" Board (lbs.):** 21.89 – 32.3

**R-value:** 11.1 – 23.0

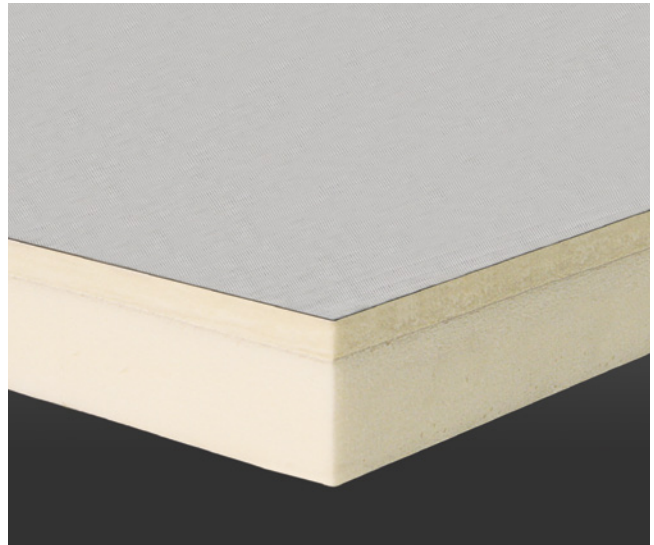
**PSI:** 109

**Recycled Content:** 8.2%

**Membrane Attachment Type:** Hook-and-loop with Carlisle's FleeceBACK RapidLock membranes

**Membrane FM 1-90 Fastener Approval:** 8 fasteners per board

**Hail Rating:** Very Severe Hail



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## STORMBASE COMPOSITE

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StormBase Composite is a rigid roof insulation composite composed of a polyiso insulation panel manufactured on-line to 7/16" OSB.

- » Superior combination of high-insulating properties and resilient OSB surface for high-traffic roof installations
- » Utilize if projects require higher wind speed coverage

**Available Thicknesses:** 1.5", 2.0", 2.5", 3.0", 3.5", 4.0"

**Available Panel Sizes:** 47.5" x 95.5" routed on 4 sides or 47.5" x 47.5" routed on 3 sides

**Weight per 47.5" x 95.5" Board (lbs.):** 52.7 – 65.7

**R-value:** 6.3 – 21.1

**PSI:** 20 on polyiso foam core

**Recycled Content:** N/A

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 8 fasteners/board with a minimum 2" panel thickness

**Hail Rating:** Very Severe Hail



## Gypsum Cover Boards

Product	Insulating	Compressive Strength	Sustainability	Hail Rating	Portability
DensDeck®	—	+	—	✓	—
DensDeck Prime	—	+	—	+	—
DensDeck StormX™ Prime	—	+	—	+	—
DEXcell® Glass Mat	—	+	—	✓	—
DEXcell FA® Glass Mat	—	+	—	✓	—
DEXcell FA VSH® Glass Mat	—	+	—	+	—
USG SECUROCK® UltraLight Coated Glass-Mat	—	+	—	✓	—
USG SECUROCK Glass-Mat	—	+	—	✓	—
USG SECUROCK Gypsum-Fiber	—	+	+	✓	—

— = Good

✓ = Better

⊕ = Best

### DENSDECK

DensDeck Roof Board features a gypsum core with embedded glass mat facers on the top and bottom of the board. This product has UL code ratings available for class A, B, and C for unlimited slopes and wood decks.

- » Primarily used as cover board over insulation
- » Resistant to deterioration, warping, and jobsite damage

**Available Thicknesses:** ¼", ½", ⅝"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 80

**R-value:** .28 – .67

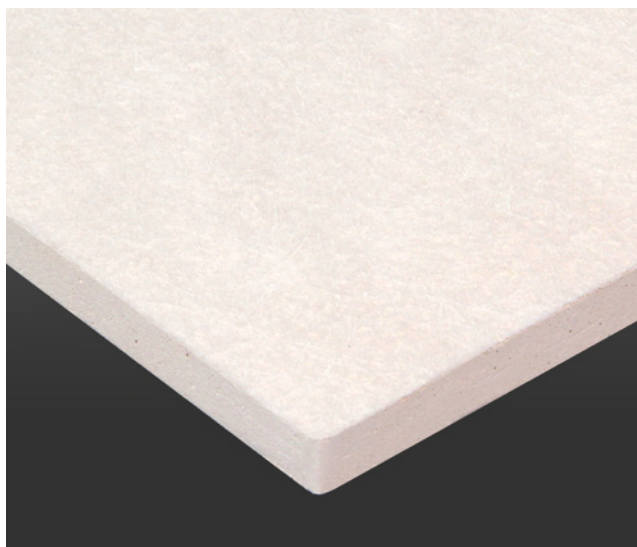
**PSI:** 900

**Recycled Content:** 94% at one manufacturing location, 0% at all others

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Severe Hail



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## DENSDECK PRIME

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DensDeck Prime Roof Board features a gypsum core with embedded glass mat facers on the top and bottom of the board. This board is typically used over insulation in EPDM, TPO, and PVC applications.

- » 5/8" DensDeck Prime can replace any generic type "X" gypsum board in any roof assembly in the UL Fire Resistance Directory under prefix "P"
- » UL code ratings available for high slopes and wood decks

**Available Thicknesses:** 1/4", 1/2", 5/8"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 80

**R-value:** .28 – .67

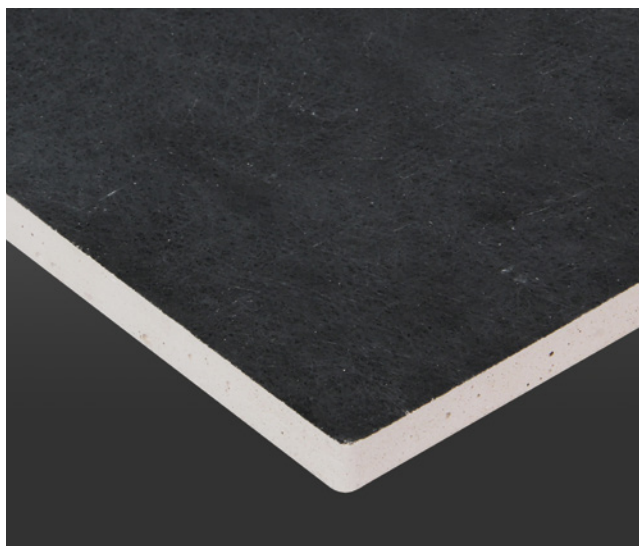
**PSI:** 900

**Recycled Content:** 94% at one manufacturing location, 0% at all others

**Membrane Attachment Type:** Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 12, 10, 8 depending on thickness

**Hail Rating:** Very Severe Hail



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## DENSDECK STORMX PRIME

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DensDeck StormX Prime Roof Board is a reinforced gypsum cover board with an enhanced moisture-resistant core and coated glass mat facers.

- » First gypsum cover board to meet FM VSH classification under single-ply membranes
- » Approved as a thermal barrier over combustible and non-combustible roof decks

**Available Thickness:** 5/8"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 98

**R-value:** .67

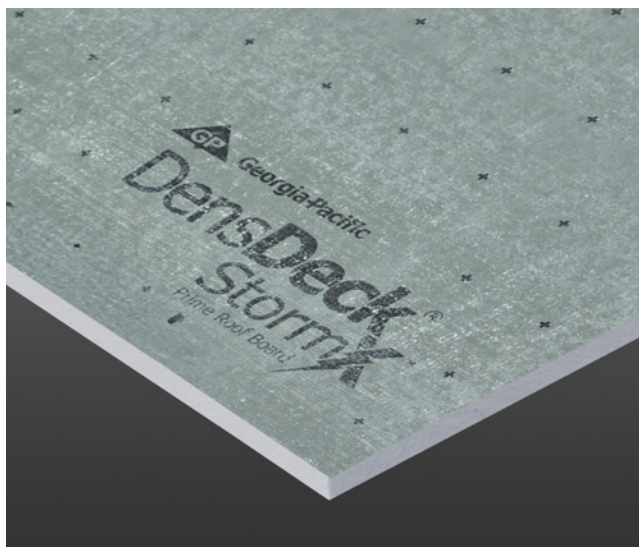
**PSI:** 900

**Recycled Content:** 0%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Very Severe Hail





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## DEXCELL GLASS MAT

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DEXcell Glass Mat Roof Board consists of coated fiberglass facers and an enhanced mold-resistant gypsum core.

- » Fiberglass mat facers have special coating for ease of use in handling and installation
- » Meets FM Class 1 and UL Class A fire ratings for roofing systems up to unlimited slope per UL 790/ULC S107

**Available Thicknesses:** ¼", ½", ⅝"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 80

**R-value:** .23 – .5

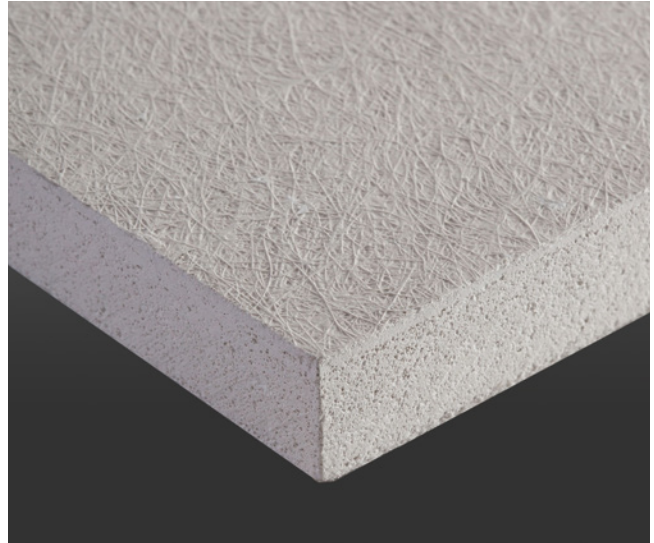
**PSI:** 900

**Recycled Content:** 5%

**Membrane Attachment Type:** Mechanically Fastened  
or Ballasted

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Severe Hail



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## DEXCELL FA GLASS MAT

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DEXcell FA Glass Mat Roof Board features heavy-duty coated fiberglass facers and an enhanced mold- and moisture-resistant gypsum core.

- » Precoated facers' sealed-surface technology is designed to increase the coverage of membrane adhesives and enhance the performance of the bond strength of the system
- » Eliminates the need for a field-applied primer for many fully adhered roofing membrane applications after system manufacturer consultation

**Available Thicknesses:** ¼", ½", ⅝"

**Available Panel Sizes:** 4' x 4' and 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 80

**R-value:** .23 – .5

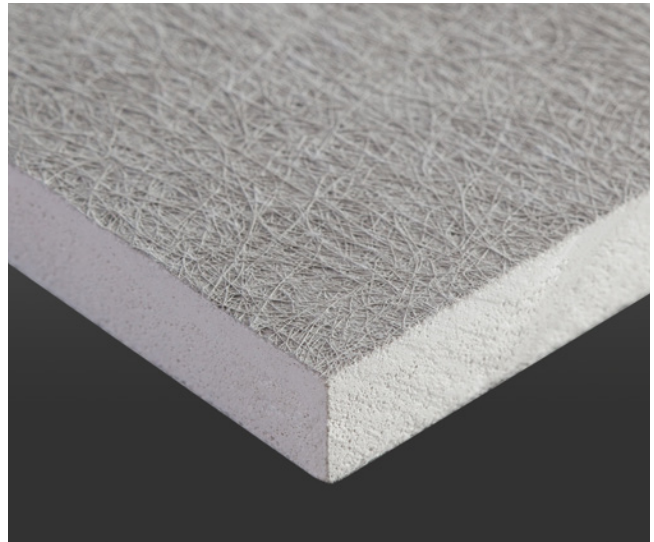
**PSI:** 900

**Recycled Content:** 5%

**Membrane Attachment Type:** Fully Adhered

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Severe Hail



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## DEXCELL FA VSH GLASS MAT

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DEXcell FA VSH Glass Mat Roof Board features a reinforced gypsum panel with an enhanced gypsum core and heavy-duty coated glass mat facers.

**Available Thickness:**  $\frac{5}{8}$ "

**Available Panel Sizes:** 4' x 4' and 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 92.8

**R-value:** .5

**PSI:** 900

**Recycled Content:** 5%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 6

**Hail Rating:** Very Severe Hail



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## USG SECUROCK ULTRALIGHT COATED GLASS-MAT

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USG SECUROCK UltraLight Coated Glass-Mat Roof Board features a specially treated gypsum core and high-performance glass-mat facers. The top facer has been coated for adhered applications.

- » Lightweight core, up to 18% lighter than competitive products
- » Ideal for use as a fire barrier and thermal barrier

**Available Thicknesses:**  $\frac{1}{4}$ ",  $\frac{1}{2}$ ",  $\frac{5}{8}$ "

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 70

**R-value:** .36 – .54

**PSI:** 700 – 900

**Recycled Content:** 0%

**Membrane Attachment Type:** Mechanically Fastened or Fully Adhered

**Membrane FM 1-90 Fastener Approval:**  $\frac{5}{8}$ " is 8 per 4' x 8' board,  $\frac{1}{2}$ " is 10 per 4' x 8' board, and  $\frac{1}{4}$ " is 16 per 4' x 8' board

**Hail Rating:** Severe Hail



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## USG SECUROCK GLASS-MAT

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USG SECUROCK Glass-Mat Roof Board features a specially treated gypsum core and high-performance glass-mat facers.

- » Mat-to-core tensile bond strength makes facer less likely to delaminate when cutting
- » For use in low-slope roofing applications

**Available Thicknesses:** ¼", ½", ⅝"

**Available Panel Size:** 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 38.4 – 70

**R-value:** .36 – .54

**PSI:** 700 – 1,000

**Recycled Content:** 0%

**Membrane Attachment Type:** Mechanically Fastened

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** Severe Hail



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## USG SECUROCK GYPSUM-FIBER

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USG SECUROCK Gypsum-Fiber Roof Board is a fiber-reinforced board with a uniform composition which gives the panel superior strength and water resistance through to the core.

- » Homogenous composition leads to high wind uplift ratings with no risk of facer delamination
- » Living Building Challenge™ Red List Free Declare Label

**Available Thicknesses:** ¼", ⅜", ½", ⅝"

**Available Panel Size:** 4' x 4'

**Weight per 4' x 4' Board (lbs.):** 25.12 – 51.2

**R-value:** .2 – .6

**PSI:** 1,800

**Recycled Content:** 97%

**Membrane Attachment Type:** Fully Adhered

**Membrane FM 1-90 Fastener Approval:** 16, 12, 10, 8 depending on thickness

**Hail Rating:** Severe Hail





## Other Boards

Product	Insulating	Compressive Strength	Sustainability	Hail Rating	Portability
DEXcell Cement	—	+	—	✓	—
Blue Ridge Fiberboard® Structodeck® (HP Recovery Board)	—	✓	+	✓	✓
GreenGuard® PB6 Fanfold Recovery Board	✓	—	✓	N/A	+
R-Tech® Fanfold Recovery Board	✓	—	✓	✓	+

— = Good

✓ = Better

⊕ = Best

### DEXCELL CEMENT

DEXcell Cement Roof Board is composed of Portland cement and lightweight aggregate with heavy-duty fiberglass-mesh facers.

- » Can serve as a substrate for a vapor retarder and/or continuous substrate for the application of roofing membranes
- » Can be used to sheath the roof side of parapet and penthouse walls and is ideal for green roofs and photovoltaic systems

**Available Thicknesses:**  $\frac{5}{8}$ ",  $\frac{7}{16}$ "

**Available Panel Sizes:** 4' x 4' and 4' x 8'

**Weight per 4' x 4' Board (lbs.):** 71 – 89

**R-value:** .28 – .4

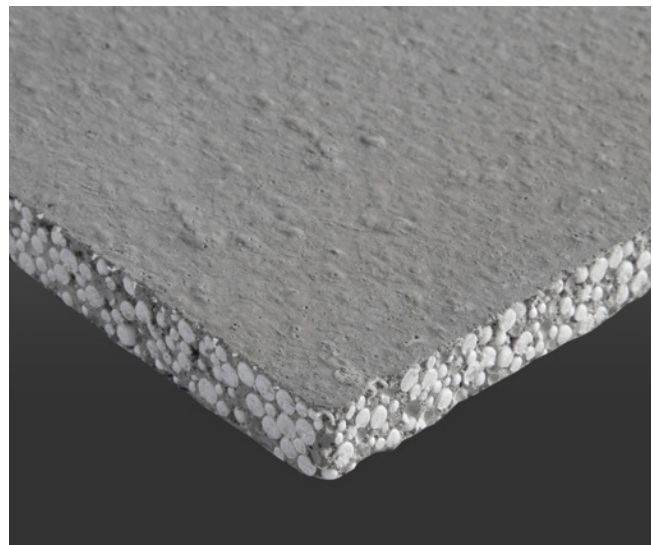
**PSI:** 1,250

**Recycled Content:** 5%

**Membrane Attachment Type:** Mechanically Fastened, Fully Adhered or Ballasted

**Membrane FM 1-90 Fastener Approval:** 6

**Hail Rating:** Severe Hail



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## BLUE RIDGE FIBERBOARD STRUCTODECK (HP RECOVERY BOARD)

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Blue Ridge Fiberboard Structodeck is also known as Carlisle's HP Recovery Board. It consists of wood fibers and additives and is treated to promote adhesion of membranes and reduce adhesive soak-in.

- » Structodeck is a 100% USDA Certified BioBased Product
- » This product is compatible with PVC, TPO, and EPDM membrane systems

**Available Thicknesses:** ½" and 1"

**Available Panel Sizes:** 4' x 4' and 4' x 8'

**Weight per 4' x 8' Board (lbs.):** 20.8 – 38.4

**R-value:** 1.3 – 2.6

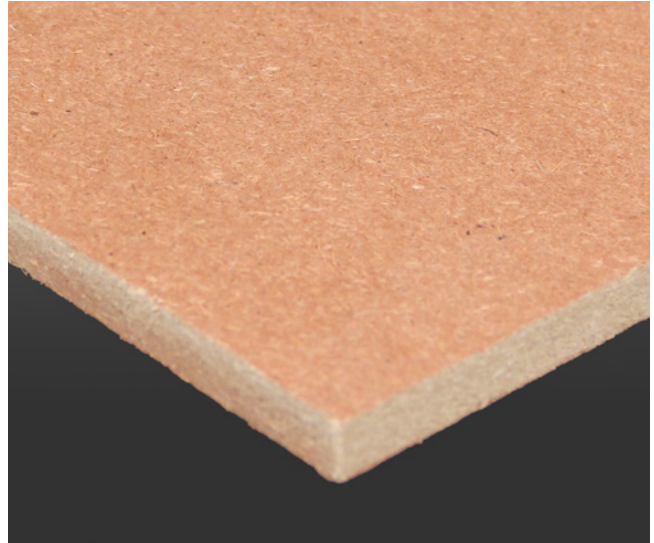
**PSI:** 150

**Recycled Content:** Up to 84%

**Membrane Attachment Type:** Mechanically Fastened, Fully Adhered or Ballasted

**Membrane FM 1-90 Fastener Approval:** 16 per 4' x 8' board

**Hail Rating:** Severe Hail



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## GREENGUARD PB6 FANFOLD RECOVERY BOARD

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GreenGuard PB6 Fanfold Recovery Board is a lightweight, closed-cell extruded polystyrene (XPS) foam core board with high-strength film facers on both sides.

- » Ideal to use with EPDM or TPO roofing membranes
- » Fan-folded bundles allow for maximum coverage of 200 square feet

**Available Thickness:** ¾"

**Available Panel Size:** 4' x 50'

**Weight per 4' x 8' Board (lbs.):** 5.2 – 9.3

**R-value:** 3.85 – 5.00

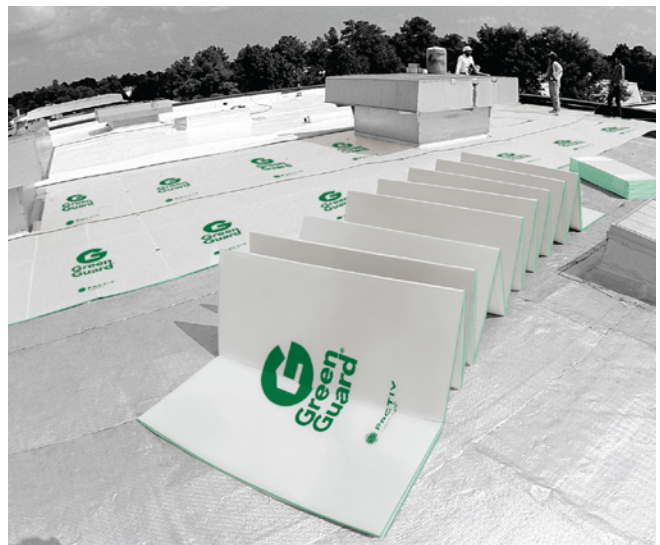
**PSI:** 10 – 25

**Recycled Content:** Up to 25%

**Membrane Attachment Type:** Mechanically Fastened or Ballasted

**Membrane FM 1-90 Fastener Approval:** N/A

**Hail Rating:** N/A



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## R-TECH FANFOLD RECOVER BOARD

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R-Tech Fanfold is a high-performance rigid insulation made of lightweight expanded polystyrene (EPS) with advanced polymeric laminate facers. This product is available with factory-adhered metallic-reflective facers, white facers, or a combination of the two.

- » Accordion-style fold allows installers to carry 400 square feet at once
- » Designed as a recovery board for applications with TPO, PVC, or EPDM membranes

**Available Thicknesses:**  $\frac{3}{8}$ ",  $\frac{1}{2}$ ",  $\frac{3}{4}$ "

**Available Panel Size:** 4' x 50'

**Weight per 4' x 8' Board (lbs.):** 5.2 – 9.3

**R-value:** 3.85 – 5.00

**PSI:** 10 – 25

**Recycled Content:** Up to 25%

**Membrane Attachment Type:** Mechanically Fastened or Ballasted

**Membrane FM 1-90 Fastener Approval:** n/a

**Hail Rating:** Severe Hail





# Achieving Code Compliance Standards

Below are some of the common cover board codes that are necessary for roofing warranties.

**ASTM C1289, Type II, Class 1, Grade 3 roofing insulation** is a specific category within the ASTM standards for polyisocyanurate thermal insulation board. This classification indicates that the insulation has a higher compressive strength than lower grades, and it comes with a non-reinforced felt or a coated glass fiber mat facer on both sides, designed for use in certain commercial roofing systems.

**ASTM C1289, Type II, Class 4, Grade 1 roofing insulation** refers to a specific classification of polyisocyanurate foam board insulation. This designation means the insulation has a particular set of physical properties, including a felt or fiberglass mat facer on both sides, and it meets specified requirements for dimensional stability, compressive strength, and thermal resistance.

**ASTM C1177** refers to a standard specification for glass mat gypsum substrate for use as sheathing, which includes roofing cover boards. Roofing cover boards under this specification are composed of a water-resistant gypsum core, surfaced with glass mat partially or completely embedded in the core, and are utilized to provide a flat, uniform surface for roofing systems, as well as to add rigidity and enhanced weather resistance.

**ASTM C578** is a standard specification that outlines the requirements for preformed, cellular polystyrene thermal insulation, commonly referred to as expanded polystyrene (EPS) and extruded polystyrene (XPS) foam board insulation. The standard classifies EPS and XPS insulation by type, based on their physical properties such as thermal resistance, compressive strength, and water absorption rates. Products that adhere to ASTM C578 ensure consistent quality and performance, making them suitable for a wide range of applications in the construction industry, particularly in insulation for walls, roofs, and foundations.

**ASTM C1278** is a standard specification for fiber-reinforced gypsum panels. This standard defines the minimum requirements for the physical and mechanical properties of glass fiber-reinforced gypsum panels, which are used in the construction of interior walls, ceilings, and partitions. The specification ensures that these panels possess adequate structural strength, durability, and fire resistance, while also providing guidelines for their proper installation and finishing.

**ASTM C208 Type II** refers to a classification within the ASTM C208 standard, which specifies requirements for cellulosic fiber insulating board, a type of thermal insulation material. Type II designates water-resistant board intended for applications requiring low water absorption and high moisture resistance, such as in certain roofing, sheathing, or siding installations where exposure to moisture is a concern.

**FM 1-90** is a wind uplift classification established by FM Global, an insurance and risk management company, which sets the standard for how well a roofing system can withstand wind pressures. The FM 1-90 designation means the roofing assembly is capable of resisting uplift pressures of 90 pounds per square foot. To test for this standard, a roofing system is subjected to controlled laboratory conditions that simulate the dynamic effects of wind. The testing process involves securing the roofing assembly to a test chamber, then increasing air pressure below the roofing system to mimic the uplifting force of wind until it reaches the threshold of 90 pounds per square foot without experiencing failure or significant damage.







*EXPERIENCE THE CARLISLE DIFFERENCE*



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