

USG SECUROCK® Gypsum-Fiber Roof Board



Overview

USG SECUROCK Gypsum-Fiber Roof Board is a high-performance roof board for use in low-slope roofing systems. Its unique, fiber-reinforced, homogenous composition means the panel is strong and water-resistant all the way through to its core. USG SECUROCK Gypsum-Fiber Roof Board provides low absorption and an exceptional bond in adhered systems, and, because of its homogenous composition, achieves high wind uplift ratings with no risk of facer delamination. Made from 97% recycled material, USG SECUROCK Gypsum-Fiber Roof Board combines superior performance with sustainable design for single-ply roofing systems.

Features and Benefits

- » Exceptional bond and low absorption in adhered systems
- » Resistant to moisture and mold
- » Exceptional wind uplift performance
- » Manufactured from 97% recycled material
- » Provides protection from hail and foot traffic when adhered with insulation adhesive

Installation

1. All board edges should be loosely abutted and never kicked in tight in typical installations. Please refer to the Typical Properties and Characteristics chart on page 2 to calculate the gap needed for your specific project (coefficient of thermal expansion and linear variation with change in moisture).

2. Install approved fasteners with plates into the USG SECUROCK Gypsum-Fiber Roof Board, flush with the surface. Fasteners should be installed in strict compliance with Carlisle's specifications and details.
3. Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of USG SECUROCK Gypsum-Fiber Roof Board.
4. Roof boards should never be installed when they are frozen.
5. See properties table for maximum flute span when panels are applied directly over metal decking.
6. For vertical parapet applications, only ½" or ⅝" panels should be used. Maximum framing spacing is 24" o.c.
7. Panel spacing may be needed based on factors like roof deck's size, membrane color, ultimate deck surface temperature and time of year the roof is installed.

Review Carlisle specifications and details for complete installation information.

Precautions

- » Consult Carlisle for specific instructions regarding the application of its products to USG SECUROCK Gypsum-Fiber Roof Board.
- » Keep USG SECUROCK Gypsum-Fiber Roof Board panels dry before, during, and after installation. USG SECUROCK Gypsum-Fiber Roof Board should not be installed in rain, heavy fog, or any other conditions that deposit moisture on the surface of the board. Apply only as much USG SECUROCK Gypsum-Fiber Roof Board as can be covered by the final roof membrane system on the same day. Avoid exposure to moisture from leaks or condensation.
- » For re-roof or re-cover applications, the existing roofing system must be dry throughout prior to application of USG SECUROCK Gypsum-Fiber Roof Board.
- » The plastic or poly packaging applied at the plant to protect the board during transit should be removed upon receipt to prevent condensation or trapping of moisture, which may cause application problems.
- » USG SECUROCK Gypsum-Fiber Roof Board should be stored flat, off the ground, protected from the weather. If stored outdoors, a breathable, waterproof covering should be used.
- » When applying solvent-based adhesives or primers, allow sufficient time for the solvent to evaporate to avoid damage to roofing components.

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Code Approvals

- » Surface Burning Characteristics and Non-Combustibility in accordance with ASTM E84 (CAN/ULC-S102).
- » ½" and ⅝" thickness – UL Class A in accordance with UL790 (CAN/ULC-S107) (ASTM E108). See the UL Building Materials Directory for more information.
- » ⅝" thickness – Meets requirements of Type X per ASTM C1278 and may be used in ULP series designs as a thermal barrier.
- » Meets FM Class 1 (FM 4450 and FM 4470).
- » Manufactured to conform to ASTM C1278, "Standard Specification for Fiber-Reinforced Gypsum Panel."

LEED® Information	
Pre-consumer Recycled Content	97%
Post-consumer Recycled Content	0%
Manufacturing Location	Bridgeport, AL Rainier, OR Plaster City, CA Aliquippa, PA Jacksonville, FL Washingtonville, PA Sperry, IA Galena Park, TX East Chicago, IN Sweetwater, TX Shoals, IN Sigurd, UT Baltimore, MD Norfolk, VA Southard, OK
Solar Reflectance Index	N/A

Typical Properties and Characteristics				
	¼" (6.6 mm)	⅝" (9.5 mm)	½" (12.7 mm)	⅝" (15.9 mm)
Width, standard	4' (1220 mm)	4' (1220 mm)	4' (1220 mm)	4' (1220 mm)
Length, standard	4' (1220 mm) and 8' (2440 mm)			
Pieces per unit (4' x 8' sheets)	50	40	30	24
Weight, nominal lbs./unit (4' x 8' sheets)	2,575	2,575	2,725	2,525
Weight, nominal lbs./sq. ft.	1.57	1.96	2.76	3.2
Flexural strength, parallel, lbs. min., per ASTM C 473	40	70	110	161
Compressive strength, psi nominal	1800	1800	1800	1800
Flute spanability per ASTM E 661	2-⅝"	5"	8"	10"
Permeance, perms, per ASTM E 96	30	26	26	24
R-Value per ASTM C 518	0.2	0.3	0.5	0.6
Coefficient of thermal expansion, inches/inch • °F, per ASTM E 831	8.0 x 10 ⁻⁶			
Linear variation with change in moisture, inches/inch • %RH, per ASTM D 1037	8.0 x 10 ⁻⁶			
Water absorption, % max, per ASTM C 473	10	10	10	10
Surface water absorption, nominal grams, per ASTM C 473	1.6	1.6	1.6	1.6
Mold resistance per ASTM D 3273*	10	10	10	10
Bending radius	25'	25'	25'	30'

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

*ASTM D3273 Mold Resistance Testing - In independent lab tests conducted on SECUROCK Gypsum-Fiber roof board and SECUROCK Glass-Mat roof board at the time of manufacture per ASTM D3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber, both panels scored a 10. The ASTM lab test may not accurately represent the mold performance of building materials in actual use. Given unsuitable project conditions during storage, installation or after completion, any building material can be overwhelmed by mold. To manage the growth of mold, the best and most cost-effective strategy is to protect building products from water exposure during storage and installation and after completion of the building. This can be accomplished by using good design and construction practices.