

SECUROCK® Gypsum-Fiber Roof Board



High-performance gypsum-fiber roof board for use in low-slope commercial roofing systems

- Exceptional bond and low absorption in adhered systems
- Moisture and mold resistant
- Excellent wind-uplift performance
- Manufactured from 95% recycled material

Description

SECUROCK® Gypsum-Fiber roof board is a high-performance roof board for use in low-slope roofing systems. Its unique, fiber-reinforced, homogenous composition gives the panel strength and water resistance through to the core. SECUROCK Gypsum-Fiber roof board provides exceptional bond and low absorption in adhered systems and with its homogenous composition achieves high wind-uplift ratings with no risk of facer delamination. Made from 95% recycled material, SECUROCK Gypsum-Fiber roof board combines superior performance with sustainable design for all types of roofing systems including single-ply, fluid-applied, built-up, spray foam, metal and modified bitumen roofing.

Advantages

Exceptional Strength Engineered to provide superior wind-uplift performance for a wide variety of roof assemblies. SECUROCK Gypsum-Fiber roof board has uniform composition providing enhanced bond strength of membrane systems with no risk of facer delamination.

Fire Performance Provides excellent fire performance and demonstrates exceptional surface burning characteristics (ASTM E84 (CAN/ULC-S102) Flame Spread 5, Smoke Developed 0).

Moisture and Mold Uniform water-resistant core ensures excellent moisture and mold resistance. Scored a maximum "10" for mold resistance on ASTM D3273.

Versatile Can be used as a component in single-ply, fluid-applied, built-up, spray foam, metal and modified bitumen roofing.

Sustainability Made from 95% recycled materials and has earned independent certification from Scientific Certification Systems for this achievement.

Limitations

- SECUROCK Gypsum-Fiber roof board is engineered to perform within a properly designed roof system. The use of SECUROCK Gypsum-Fiber roof board as a roofing component is the responsibility of the design professional.
- Consult roofing manufacturers for specific instructions on the application of their products to SECUROCK Gypsum-Fiber roof board
- Weather conditions, dew, application temperature, installation techniques and moisture drive can have adverse effects on the performance of the roof system and are beyond the control of USG.
- Keep SECUROCK Gypsum-Fiber roof board panels dry before, during and after installation. SECUROCK Gypsum-Fiber roof board should not be installed during rains, heavy fogs and any other conditions that deposit moisture on the surface of the board. Apply only as much SECUROCK Gypsum-Fiber roof board that can be covered by final roof membrane system in the same day. Avoid exposure to moisture from leaks or condensation.
- For re-roof or re-cover applications, existing roofing system must be dry throughout prior to application of SECUROCK Gypsum-Fiber roof board.
- Plastic or poly packaging applied at the plant to protect board during rail or other transit should be removed upon receipt to prevent condensation or trapping of moisture, which may cause application problems.
- SECUROCK Gypsum-Fiber roof board should be stored flat and off the ground with protection 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.
- USG allows the bonding of cold mastic modified bitumen and torching directly to the surface. Consult with the system manufacturer for recommendations on this application.
- USG recommends maximum asphalt application temperature for Type III asphalt of 455 °F when using SECUROCK Gypsum-Fiber roof board. Application temperatures above these recommended temperatures may adversely affect roof system performance.

Installation

- Refer to roof system manufacturer's written instructions, local code requirements and Factory Mutual Global (FMG) and/or Underwriters Laboratories (UL) requirements for proper installation techniques.
- Use fasteners specified in accordance with above requirements. Install approved fasteners with plates into the SECUROCK Gypsum-Fiber roof board, flush with the surface. Fasteners should be installed in strict compliance with the roof system manufacturer's installation recommendations and FMG Loss Prevention Data Sheet 1-29. Proper fastener spacing is essential to achieve wind-uplift performance.

- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of SECURock Gypsum-Fiber roof board. Butt board edges and ends loosely in typical installations. Long, uninterrupted runs (greater than 200 feet) of SECURock Gypsum-Fiber roof board will require slight gapping due to thermal expansion.
- See product data table below for maximum flute span when panels are applied directly over metal decking.
- For vertical parapet applications, only 1/2" or 5/8" panels should be used. Maximum framing spacing is 24" o.c.

Fire Performance

- UL Classified as to Surface Burning Characteristics and Non-Combustability in accordance with ASTM E84 (CAN/ULC-S102)
 - Flame Spread 5 and Smoke Developed 0
- 1/4", 3/8", 1/2" and 5/8" Thickness — Class A in accordance with UL790 (CAN/ULC-S107). See the UL Building Materials Directory for more information.
- 5/8" Thickness — Meets requirements of Type X per ASTM C1278 and may be used in P series designs as a thermal barrier.

System Performance

- FM Approved
 - Complies with requirements of FM 4450 and FM 4470
 - Meets FM Class 1

Standards Compliance

SECURock Gypsum-Fiber roof board is manufactured to conform to ASTM C1278, "Standard Specification for Fiber-Reinforced Gypsum Panel."

Physical Properties

	SECURock Gypsum-Fiber Roof Board			
	1/4" (6.6 mm)	3/8" (9.5 mm)	1/2" (12.7 mm)	5/8" (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)	4' (1220 mm) and 8' (2440 mm)	4' (1220 mm) and 8' (2440 mm)	4' (1220 mm) and 8' (2440 mm)
Pieces per unit for 4' x 8' sheets	50	40	30	24
Weight, nominal lbs./unit, 4' x 8' sheet	2,575	2,575	2,725	2,525
Weight, nominal lbs./sq. ft.	1.57	1.96	2.76	3.20
Flexural strength, parallel, lbs. min., per ASTM C 473	40	70	110	161
Compressive strength, psi nominal	1800	1800	1800	1800
Flute spannability per ASTM E 661	2-5/8"	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	8.0 x 10 ⁻⁶	8.0 x 10 ⁻⁶	8.0 x 10 ⁻⁶
Linear variation with change in moisture, inches/inch • %RH, per ASTM D 1037	8.0 x 10 ⁻⁶	8.0 x 10 ⁻⁶	8.0 x 10 ⁻⁶	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'

***ASTMD3273 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.

Submittal Approvals:

Job Name	
Contractor	Date

Product Information

See usg.com for the most up-to-date product information.

Trademarks

The following trademarks used herein are owned by United States Gypsum Company or a related company: SECURock, USG, USG in stylized letters.

Note

Products described here may not be available in all

geographic markets. Consult your U.S. Gypsum Company sales office or representative for information.

Notice

We shall not be liable for incidental or consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or

for other than their intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from the date it was or reasonably should have been discovered.

Safety First!

Follow good safety and industrial hygiene practices

during handling and installation of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.