

# USG SECUROCK® BRAND CEMENT ROOF BOARD



## DESCRIPTION

USG Securock® Brand Cement Roof Board is a high-performance roof board for use in low-slope roofing systems. As the lightest and easiest-to-use cement board in the industry, it enhances the entire roofing system as both a cover board and as a parapet, fire or thermal barrier roof board. As a cover board, USG Securock Cement Roof Board can be used with a variety of membranes and systems including most adhered and mechanically attached systems, but it is ideal for applications such as liquid-applied membranes and cold mastic-modified bitumen. As a parapet, fire or thermal barrier roof board, USG Securock Cement Roof Board has an unlimited slope classification and is noncombustible. Because this product is cement-based, it provides superior compressive strength, water durability and mold resistance.

## ADVANTAGES

**Exceptional Strength:** Engineered to provide superior wind-uplift performance for a wide variety of roof assemblies. USG Securock Cement Roof Board is formed in a continuous process using an aggregated Portland cement slurry with polymer-coated, glass-fiber mesh completely encompassing edges and both surfaces, which enhances bond strength of membrane systems and gives excellent resistance to delamination.

**Fire Performance:** Meets Factory Mutual (FM) Class 1 and Underwriters Laboratories (UL) Class A fire ratings for unlimited slope in fire-barrier applications per UL790.

**Moisture and Mold:** Scored a maximum "10" for mold resistance on ASTM D3273 and is highly water durable.

**Versatile:** Can be used as a component in most single-ply, fluid-applied, spray foam, metal and cold-applied modified bitumen roofing. Comes in both 4' x 8' and 4' x 4' sizes.

## 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 USG Securock Cement 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. **A qualified architect or engineer should review and approve calculations, framing and fastener spacing for all projects.**
- Only use corrosion-resistant fasteners that are compatible with concrete. Approved fasteners include: USG Durock™ Brand Tile Backer Screws for steel framing (or equivalent), 1-1/4" and 1-5/8" for 14- to 20-gauge steel framing; USG Durock™ Tile Backer Screws for wood framing (or equivalent), 1-1/4", 1-5/8" and 2-1/4" for wood framing; and nails (1-1/2" hot-dipped galvanized roofing nails).
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of USG Securock Cement Roof Board.
- All board edges should be loosely abutted and never kicked in tight in typical installations.
- Roof boards should never be installed if they exhibit frost or are below 32°F.
- For vertical parapet applications—maximum stud spacing: 16" o.c., maximum fastener spacing: 8" o.c. for wood and steel framing. Always consult a design professional for actual spacing.

## LIMITATIONS

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- USG Securock Cement Roof Board is engineered to perform within a properly designed roof system. The use of USG Securock Cement 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 USG Securock Cement Roof Board. For fully adhered fiberglass reinforced membranes consult the membrane manufacturer.
  - 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 USG Securock Cement Roof Board panels dry before, during and after installation. USG Securock Cement Roof Board should not be installed during rain, heavy fog and any other conditions that deposit moisture on the surface of the board. Apply only as much USG Securock Cement Roof Board that can be covered by final roof membrane system in the same day. Avoid exposure to moisture from leaks or condensation.
  - Wind uplift (vertical pull) of the roof system as installed can be affected by many factors beyond USG's control, including moisture migrating into the roof assembly from inside or outside the building, proper fastener spacing, the quality of installation especially for fasteners and whether the framing has been properly designed and installed to meet strength and deflection criteria specified in the contract documents. For all these reasons, USG cannot guarantee the wind-uplift resistance (vertical pull) of any roof assembly or system containing USG roof boards.
  - Moisture from inside the building can be as big a risk for the roof system as moisture from outside. The contractor installing the roof and the design professional should protect the roof assembly not only from excessive moisture during the construction of the building (new concrete, paint, plaster materials) but also after the building is dried in. The HVAC system must properly manage moisture generated by the occupants of the building to make sure it is vented to the outside and does not migrate into the roof system.
  - 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. The designer of record should use USG's published physical properties below to determine if spacing is needed.
  - For reroof or re-cover applications, existing roofing system must be dry throughout prior to application of USG Securock Cement 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.
  - USG Securock Cement Roof Board should be stored flat and off the ground with protection from the weather. Preferred storage location is an enclosed shelter providing protection from the elements. However, 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.
  - Consult with the system manufacturer for recommendations on all applications.
  - USG Securock Cement Roof Board is formulated to develop fine microcracking (also known as multiple cracking) in the panel. The microcracking process helps to evenly relieve the stored strain energy in the product due to handling and installation, external loads and/or panel restrained movement. The presence of microcracks in the panel should not be considered a product defect.
  - USG recommends maximum asphalt application temperature for Type III asphalt of 450°F when using USG Securock Cement Roof Board. Application temperatures above these recommended temperatures may adversely affect roof system performance.

## FIRE PERFORMANCE

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- UL Classified (Type DCB) as to Surface Burning Characteristics in accordance with ASTM E84 (CAN/ULC-S102).
    - Flame Spread 0 and Smoke Developed 0
    - Noncombustible Core per ASTM E136-12 (CAN/ULC-S114)
  - Class A unlimited slope in accordance with UL790 (CAN/ULC-S107). See the *UL Building Materials Directory* for more information.

## SYSTEM PERFORMANCE

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

## STANDARDS COMPLIANCE

## PHYSICAL PROPERTIES

USG Securock Cement Roof Board is manufactured to conform to ASTM C1325, "Standard for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units."

Thickness, nominal	1/2" (12.7 mm)	5/8" (15.9 mm)
Width, standard	4' (1,219 mm)	4' (1,219 mm)
Length, standard	4' (1,219 mm) and 8' (2,438 mm)	4' (1,219 mm) and 8' (2,438 mm)
Pieces per unit for 4' x 8' sheets	30	24
Weight, nominal lb./unit, 4' x 8' sheet	2,375	2,880
Weight, nominal lb./sq. ft.	2.4	3.0
Flexural strength, parallel, psi, per ASTM C947	>750	>480
Compressive strength, psi nominal	>1,000 (6.9MPa)	>1,250 (8.6MPa)
Flute spanability per ASTM E661	12"	12"
Permeance, perms, per ASTM E96	5.84	5.84
R Value, °F.ft².h/Btu, per ASTM C518	0.39	0.49
Coefficient of thermal expansion, inches/inch/°F, per ASTM E831	4.5 x 10 <sup>-6</sup>	4.5 x 10 <sup>-6</sup>
Linear variation with change in moisture, %, per ASTM D1037	<0.07	<0.07
Water absorption, % max, per ASTM C473	<15	<15
Mold resistance, per ASTM D3273*	10	10
Minimum bending radius	6'	6'

\*ASTM D3273 Mold Resistance Testing: In independent lab tests conducted on USG Securock® Brand Cement 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, 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.

### CAUTION

Dust may cause irritation to eyes, skin, nose, throat, and upper respiratory tract. Cut and trim with a utility knife or hand saw to minimize dust levels. Power tools must be equipped with a dust collection system. Wear eye, skin, and respiratory protection if necessary. If eye contact occurs, flush thoroughly with water for 15 minutes. If irritation persists, call physician. Do not swallow. If swallowed, call physician. For more information call Product Safety: 800-507-8899 or see the SDS at usg.com  
**KEEP OUT OF REACH OF CHILDREN.**

### TRADEMARKS

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### NOTE

Products described here may not be available in all geographic markets. Consult your USG Company sales office or representative for information.

### NOTICE

We shall not be liable for incidental and 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 the 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 date it was or reasonably should have been discovered.

### SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

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RF51-USA-ENG/rev. 6-19  
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