

USG SECUROCK® BRAND GLASS-MAT ROOF BOARD



DESCRIPTION

USG Securock® Brand Glass-Mat Roof Board is a high-performance roof board for use in low-slope commercial roofing systems. It enhances the durability of the entire roofing system when used as cover board in single-ply mechanically attached systems. Its specially treated core and high-performance glass-mat facer provide protection against fire, mold and moisture.

ADVANTAGES

Fire Performance: Meets Factory Mutual (FM) Class 1 and Underwriters Laboratories (UL) Class A fire ratings for unlimited slope in fire barrier applications per UL 790.

Easier to Cut, Handle and Install: High-quality mat produces less itchiness than competitive products.

Moisture and Mold: Fiberglass face and back with treated core provide moisture and mold resistance. Scored a maximum "10" for mold resistance on ASTM D3273.

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 Glass-Mat 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.**
- Locate edge joints on, and parallel to, deck ribs. Stagger end joints of adjacent lengths of USG Securock Glass-Mat 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
- 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.

LIMITATIONS

- USG Securock Glass-Mat Roof Board is engineered to perform within a properly designed roof system. The use of USG Securock Glass-Mat 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 Glass-Mat 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 USG Securock Glass-Mat Roof Board panels dry before, during and after installation. USG Securock Glass-Mat 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 Glass-Mat Roof Board that can be covered by final roof membrane system in the same day. Avoid exposure to moisture from leaks or condensation.

LIMITATIONS CONT.

- 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 Glass-Mat 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 Glass-Mat 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.
 - For systems not listed, please contact your local USG Securock® roofing sales representative.
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FIRE PERFORMANCE

- UL Classified (Type SGMRX) as to Surface Burning Characteristics and Noncombustibility in accordance with ASTM E84 (CAN/ULC-S102).
 - Flame Spread 0 and Smoke Developed 0
 - Noncombustible Core
 - 1/4", 1/2" and 5/8" thickness—Class A unlimited slope in accordance with UL790 (CAN/ULC-S107).
 - 5/8" thickness—Meets requirements of Type X per ASTM C1177 and may be used in P series designs as a thermal barrier.
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SYSTEM PERFORMANCE

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

USG Securock Glass-Mat Roof Board is manufactured to conform to ASTM C1177.

PHYSICAL PROPERTIES

| | 1/4" (7.4 mm) | 1/2" (12.7 mm) | 5/8" (15.9 mm) |
|--|------------------------|------------------------|------------------------|
| Width, standard | 4' (1,220 mm) | 4' (1,220 mm) | 4' (1,220 mm) |
| Length, standard | 8' (2,440 mm) | 8' (2,440 mm) | 8' (2,440 mm) |
| Pieces per unit for 4' x 8' sheet | 42 | 30 | 30 |
| Weight, nominal lb./unit 4' x 8' sheet | 1,688 | 1,995 | 2,667 |
| Weight, nominal lb./sq. ft. | 1.2 | 2.0 | 2.7 |
| Flexural strength, parallel, lb. min. per ASTM C473 | 40 | 80 | 100 |
| Compressive strength, psi nominal | 700-1,000 | 700-1,000 | 700-1,000 |
| Flute spannability per ASTM E661 | 2-5/8" | 5" | 8" |
| Permeance, perms per ASTM E96 | 18 | 18 | 16 |
| R Value per ASTM C518 | 0.36 | 0.53 | 0.54 |
| Coefficient of thermal expansion, inches/inch • °F, per ASTM E831 | 8.5 x 10 ⁻⁶ | 8.5 x 10 ⁻⁶ | 8.5 x 10 ⁻⁶ |
| Linear variation with change in moisture, inches/inch • %RH, per ASTM D1037 | 6.3 x 10 ⁻⁶ | 6.3 x 10 ⁻⁶ | 6.3 x 10 ⁻⁶ |
| Water absorption, % max, per ASTM C473 | 10 | 10 | 10 |
| Mold resistance per ASTM D3273* | 10 | 10 | 10 |
| Bending radius | 4' | 6' | 9' |

***ASTM D3273 Mold Resistance Testing:** In independent lab tests conducted on USG Securock® Brand Gypsum-Fiber Roof Board and 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.

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. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read SDS and literature before specification and installation.

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