

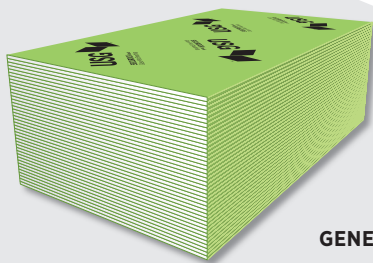


USG SECUROCK® BRAND GLASS-MAT SHEATHING

INSTALLATION GUIDE

USG 
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SECUROCK® Brand
Glass-Mat Sheathing

**GENERAL**

USG SECUROCK® BRAND GLASS-MAT SHEATHING

- 1.1 USG Securock® Brand Glass-Mat Sheathing meets or exceeds all requirements of ASTM C1177 *Standard Specification for Glass-Mat Substrate for Use as Sheathing*. Panels are available in 1/2" and 5/8" thicknesses, 48" wide, and standard lengths of 8', 9' and 10', with square edges. Other sizes are available on special order.
- 1.2 This product may be used under exterior claddings where conventional gypsum sheathing products have traditionally been used, such as brick veneer, clapboard, wood shingles or shakes, plywood, vinyl, metal and conventional stucco. This product may also be used as a substrate for mechanically and adhesively attached EIFS.
- 1.3 Details and requirements pertaining to framing and application limitations shall be controlled by the cladding, structural or fire-resistant-rated system, and must be approved by the architect, engineer or design professional of record.
- 1.4 This product shall be installed in accordance with GA-253 *Application of Gypsum Sheathing*, ASTM C1280 *Standard Specification for Application of Gypsum Sheathing* and the requirements of USG product literature.
- 1.5 This product is not approved for use as a nail base.
- 1.6 Details for construction of a specific assembly to achieve a required fire resistance shall be installed in accordance with actual fire-resistive testing. Consult the actual UL design for more details.
- 1.7 Where sound control is required, details of construction shall be in accordance with an acoustical test report of an assembly that has met the required acoustical value(s).
- 1.8 Where resistance to racking shear and/or transverse wind load is required, system-design capacities shall be obtained from USG-published literature, engineering evaluations and test reports of a specific assembly where mandated by local code requirements.
- 1.9 Always wear appropriate personal protective equipment, such as gloves, safety glasses, hearing protection and a NIOSH-approved dust mask, when handling and installing USG Securock Glass-Mat Sheathing panels.

DELIVERY AND JOB-SITE STORAGE

- 2.1 All materials shall be delivered in their original, unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements.
WARNING: Store all USG Securock Glass-Mat Sheathing panels flat, unless the site manager directs vertical stacking to avoid point overloading of the floor structure or a tripping hazard. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.
- 2.2 Prevent face, back and edges of the panels from exposure to cascading water.

FRAMING

- 3.1 USG Securock Glass-Mat Sheathing shall be installed on either wood or steel framing. The framing system shall be sized and designed to meet the requirements of the intended application.
- 3.2 The maximum spacing for framing members is 24" o.c.
- 3.3 Framing shall be straight and true, attached securely following accepted engineering practices and as required for the intended design.
- 3.4 The surfaces to which abutting edges or ends of the sheathing are to be attached shall not be less than 1-1/4" for steel framing and 1-1/2" for wood framing.
- 3.5 Bearing surfaces shall not be less than 3/4" for internal corners or angles.
- 3.6 Framing members shall be installed so that the surface will be on an even plane, unless otherwise specified, after the sheathing has been applied. The fastening surface shall not vary more than 1/8" from the plane of the faces of adjacent framing members.

SHEATHING CUTTING AND APPLICATION

- 4.1 USG Securock Glass-Mat Sheathing may be applied with long dimensions parallel or perpendicular to framing members except where limited by specific requirements. Sheathing orientation may be governed by local code or by the requirements of shear or fire-rated construction. Consult local codes and site-specific construction documents to ensure such requirements are met for every assembly prior to construction.
- 4.2 USG Securock Glass-Mat Sheathing shall be cut to size by scoring the face mat with a utility knife from the face side, or by sawing. Separate by snapping the panel away from the score line to fracture the core and then by scoring the back mat with a utility knife. If a power saw is used, a cordless, low-rpm saw will generate less airborne debris than a corded power saw.

SHEATHING CUTTING AND APPLICATION CONT.

- 4.3 The cut edges and ends of the sheathing shall be trimmed to obtain neat-fitting joints when installed.
- 4.4 Holes for pipe penetrations, fixtures or other small openings shall be scored or saw-cut from the face side before removing the cutout.
- 4.5 Install panels with the logo side out. Panels are labeled “this side out” along the edge that must be visible from the exterior side of the assembly when installed properly.
- 4.6 All vertical ends and edge joints shall abut over the centers of framing members and shall be offset a minimum of one framing bay between adjacent rows of sheathing panels.
- 4.7 Center panel joints on framing members. Fit panels closely at edges and ends, but do not force together. Hold panels in firm contact with framing members and secure with fasteners as specified. Fasteners shall be driven flush with the panel surface—without countersinking or being deep enough to break the glass mat—and into the framing. Fasten the panel to framing, working from the center of the panel toward the edges and ends.
- 4.8 Screw profile must be designed for the framing in use, unless superseded by a more stringent specification. The minimum requirements for sheathing fasteners shall be as follows:
 - a. **Nails:** 11-gauge hot-dipped galvanized roofing nails with a 7/16" diameter head, 1-1/2" for 1/2" sheathing, 1-3/4" for 5/8" sheathing.
 - b. **Screws:** (1-1/4") (1-5/8") #6 buglehead corrosion-resistant fasteners.
 - c. **Corrosion Resistance:** Where sheet-type weather-resistive barriers or self-adhering membranes are placed over the sheathing, corrosion resistance shall be equal to or greater than a hot-dipped galvanized coating of 1.5 ounces of zinc per square foot of surface area. Where liquid- or fluid-applied air and water barriers are applied to the sheathing, or where no sheet-type weather-resistive barrier is used, screws shall have a corrosion resistance of more than 800 hours per ASTM B117. Stainless steel fasteners may be used in coastal or aggressive environments.
 - d. **Edge Distance:** The minimum distance from any fastener to the edge or end of the panel is 3/8".
 - e. **Spacing:** Maximum fastener spacing is 8" o.c.
- 4.9 Supplementary use of panel adhesive will strengthen the connection and bridge minor irregularities between the panel and framing, facilitating enhanced performance and appearance. The use of adhesive, however, will not reduce the number of fasteners required by the specification. For optimal bond, apply adhesive in accordance with manufacturer's instructions. Framing must be free from oil and dirt, and sheathing must be clean and dry.
- 4.10 Fit sheathing snugly around window and door openings. Sheathing joints shall be offset a minimum of 4" from the edge of any opening.
- 4.11 Sheathing shall be flashed at all openings (head, sill, etc.) and all roof/wall intersections (step, kickout, etc.) so water intrusion will not contact the sheathing.
- 4.12 Sheathing shall be no less than 8" from the finish grade in weather- and water-protected siding, and no less than 12" from the ground when used in correctly drained and vented crawl spaces.

SOFFIT CONSTRUCTION

- 5.1 The roof must be dried-in prior to the installation of sheathing in horizontal applications.
- 5.2 Maximum fastener spacing for soffits is 8" o.c.
- 5.3 Panels are subject to expansion and contraction due to changes in temperature and humidity. A 1/4" clearance joint (perimeter relief) is required between USG Securock Glass-Mat Sheathing installed in soffits and adjacent walls, fascia, beams or columns. Wings of “L”, “U” and “T”-shaped areas should be separated with control joints. See the Control Joints section of this publication for additional requirements.
- 5.4 Adequate ventilation in accordance with the local code requirements shall be provided for the space immediately above the panels.
- 5.5 Applications must be designed to resist wind uplift.
- 5.6 Fascia boards should extend at least 1/4" below the ceiling board or adjacent trim moldings, whichever is lower, to provide a drip edge.

Option 1

Apply a synthetic-type direct-applied finish system in accordance with the finish manufacturer's recommendations.

Option 2

Embed USG Sheetrock® Brand Joint Tape in USG Sheetrock® Brand Durabond® Setting-Type Joint Compound over all joints. After fill coat has set, apply finish coat of USG Sheetrock® Brand Durabond Setting-Type Joint Compound over joints.

SOFFIT CONSTRUCTION CONT.

Once dry, apply a smooth, uniform thin coat of USG Sheetrock® Brand Durabond Setting-Type Joint Compound over the entire surface of the panels. Setting-type joint compound should be applied thick enough to ensure proper hydration prior to setting.

After the joint compound has dried, apply one coat of a good quality latex flat exterior primer and finish with two coats of a balanced, good-quality alkyd or latex exterior finish paint.

CONTROL JOINTS

- 6.1 The location and design of control joints are the responsibility of the design professional of record.
- 6.2 Control joints are required by the *International Building Code*. The maximum distance between control joints shall not exceed 30', and shall be installed at every building construction joint.
- 6.3 Locate all other control joints as per cladding system requirements or in accordance with ASTM C1280 *Standard Specification for Application of Gypsum Sheathing*, whichever is more stringent.

CLEANUP

- 7.1 Leftover material shall be removed from the job site.
- 7.2 Waste material shall be disposed of in a safe manner and in compliance with site, local, state and/or federal requirements.

EXPOSURE AFTER INSTALLATION

- 8.1 USG Securock Glass-Mat Sheathing shall be covered by an exterior cladding or other weather-resistive barrier and is not intended for long-term exposure. Sheathing shall not be exposed to the elements for more than 12 months after it has been installed. Immediately upon installing the panels, the joints should be finished and the entire panel covered with a weather-resistive barrier if the exposure time will be more than 12 months.
- 8.2 Apply weather-resistive or water barriers and flashing as required by and in accordance with the applicable local code requirements and the recommendations of the exterior cladding manufacturer, whichever is more stringent.
- 8.3 For maximum protection, the design professional may recommend treating the cut edges with a low-modulus silicone sealant; treat joints by embedding 4"-wide USG Durock™ Brand Exterior Tape in a low-modulus silicone sealant and strike joints flush using a trowel or broad knife. Allow sealant to cure per manufacturer's instructions prior to installation of weather-resistive barrier and/or cladding system.

NOTE: This treatment should be used only under mechanically attached weather-resistive barriers and cladding systems.

PRODUCT INFORMATION

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

WARNING

Dust can contain silica. Prolonged and repeated breathing of silica dust can cause lung damage and cancer. If cutting with a power tool, use a wet or vacuum saw to reduce the amount of dust generated. Dust can be corrosive to eyes, skin and respiratory tract. Contact can cause severe chemical burns. Wear eye, skin and respiratory protection. If eye contact occurs, flush immediately with water for 30 minutes. If ingested, call a physician.

Product safety information: 800 507-8899 or usg.com
Customer Service: 800 USG.4YOU (874-4968).

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 MSDS and literature before specification and installation.

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Manufactured by
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WB2451/rev. 5-15
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