

General Specification Notes: References in **blue** are general indicators to the specifier.
References in **red** relate to fire-rated assemblies and/or code related issues, if not applicable, delete.

SECTION 061600 / 06 16 43 SHEATHING
Securock Brand Glass Mat Sheathing



Product
Specification

PART 1 - GENERAL

1.01 SUMMARY

- A. This Section includes the following:
 - 1. Wall Sheathing.
 - 2. Weather-Resistant Sheathing Barriers.

- B. Related Sections include the following:
 - 1. Section 018113 – Sustainable Design Requirements.
 - 2. Section 054000 – Cold-Formed Metal Framing.
 - 3. Section 061000 – Rough Carpentry.

1.02 REFERENCES

- A. American Society for Testing and Materials:
 - 1. ASTM C 297: Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
 - 2. ASTM C 954: Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs from 0.033 inch to 0.110 inch in Thickness
 - 3. ASTM C 1002: Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs.
 - 4. ASTM C 1177: Standard Specification for Glass Mat Gypsum – Substrate for use as Sheathing.
 - 5. ASTM C 1280: Standard Specification for Application of Gypsum Sheathing.
 - 6. ASTM C 1396: Standard Specification for Gypsum Board.
 - 7. ASTM D 226: Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 - 8. ASTM E 84: Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 9. ASTM E 119: Test Method for Fire Tests of Building Construction and Materials.

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10. ASTM E 1677: Standard Specification for an Air Retarder (AR) Material or System for Low-Rise Framed Building Walls.

B. Gypsum Association:

1. GA 253: Recommended Specification for the Application of Gypsum Sheathing.

1.03 SUBMITTALS

A. General: Submit in accordance with Section 013300

B. Product Data: Submit manufacturer's current technical literature for product specified.

1.04 QUALITY ASSURANCE

A. Fire Resistance Rated Assembly Characteristics: Provide materials and construction identical to those tested in accordance to ASTM E 119 by an independent testing and inspection agency acceptable to authorities having jurisdiction.

1. Fire Resistance Ratings: Indicated by design designations from UL Fire Resistance Directory.

1.05 DELIVERY, STORAGE, AND HANDLING

A. 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 SECUROCK Brand Glass Mat Sheathing flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.

PART 2 - PRODUCTS

2.01 WALL SHEATHING

A. Glass Mat Gypsum Sheathing: ASTM C 1177 gypsum sheathing.

1. Product: Subject to compliance with requirements, provide SECUROCK Brand Glass Mat Sheathing by United States Gypsum Company.
2. Type and Thickness: [Regular, 1/2 inch] [Type X, 5/8 inch] thick.
3. Size: [48 by 96 inches] [48 by 108 inches] [48 by 120 inches] with square edge.

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2.02 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and application.
- B. Nails: 11-gauge hot-dipped galvanized roofing nails [1-1/2 inch] [1-3/4 inch], 7/16 inch diameter head – (Minimum).
- C. Wood Screws: # 6 [1-1/4 inch] [1-5/8 inch] [2-1/4 inch] with a corrosion-resistance of more than 800 hours per ASTM B117 (Minimum).
- D. Screws for Fastening Sheathing to Cold-Formed Metal Framing: #6 [1-1/4 inch] [1-5/8 inch] [2-1/4 inch] with corrosion-resistance of more than 800 hours per ASTM B117 (Minimum).
 - 1. For steel framing less than 0.0329 inch thick, attach sheathing to comply with ASTM C 1002.
 - 2. For steel framing from 0.033 to 0.112 inch thick, attach sheathing to comply with ASTM C 954.

2.03 WEATHER-RESISTANT SHEATHING PAPERS (Weather Resistive Barrier)

- A. Building Paper: ASTM D 226, Type 1 (No. 15 asphalt-saturated organic felt), unperforated.
- B. Building Wrap: ASTM E 1677, Type I air retarder, with flame-spread and smoke-developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84, UV stabilized and acceptable to authorities having jurisdiction.
 - 1. Products: Subject to compliance with requirements, provide Tyvek StuccoWrap by DuPont (E. I. du Pont de Nemours and Company).
- C. Building-Wrap Tape: Pressure-sensitive plastic tape recommended by building wrap manufacturer for sealing joints and penetrations in building wrap.

2.04 MISCELLANEOUS MATERIALS

- A. Sealant For Glass Mat Gypsum Sheathing Board: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials.
- B. Sealant for Glass-Mat Gypsum Sheathing Board: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing.
- C. Sheathing Tape for Glass-Mat Gypsum Sheathing Board: Self –adhering, glass fiber tape, minimum 2” wide for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing board.

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- D. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film.
- E. Primer for Flexible Flashing: Product recommended by manufacturer of flexible flashing for substrate.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit closely against abutting construction, unless otherwise indicated.
- C. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- D. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

3.03 SHEATHING INSTALLATION

- A. Comply with ASTM C 1280, GA-253 and manufacturer's written instructions.
 - 1. Fasten sheathing to wood framing with [nails] [screws].
 - 2. Fasten sheathing to cold-formed metal framing with screws.
 - 3. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
 - 4. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing boards but do not cut into facing.
- C. Sheathing may be installed with the long dimension of the sheathing either parallel or perpendicular to framing. Board orientation to be dictated by performance requirements. Abut ends and/or edges of the boards centered over face of framing members. Offset board joints by not less than one stud spacing
 - 1. Space fasteners a maximum of 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards. Adjust spacing of fasteners to meet specific fire or structural performance requirements.

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2. For sheathing under stucco cladding, boards may be initially tacked in place with screws if overlying self-furring metal lath is screw-attached through sheathing to studs immediately after sheathing is installed.

3.04 WEATHER-RESISTANT SHEATHING PAPER INSTALLATION

- A. General: Cover sheathing with weather-resistant sheathing paper as follows:
 1. Cut back barrier 1/2 inch on each side of the break in supporting members at expansion- or control-joint locations.
 2. Apply barrier to cover vertical flashing with a minimum 4-inch overlap, unless otherwise indicated.
- B. Building Paper: Apply horizontally with a 2-inch overlap and a 6-inch end lap; fasten to sheathing with galvanized staples or roofing nails.
- C. Building Wrap: Comply with manufacturer's written instructions.
 1. Seal seams, edges, fasteners, and penetrations with tape.
 2. Extend into jambs of openings and seal corners with tape.

3.05 FLEXIBLE FLASHING INSTALLATION

- A. Apply flexible flashing where indicated to comply with manufacturers written instructions.
 1. Prime substrates as recommended by flashing manufacturer.
 2. Lap seams and junctures with other materials at least 4 inches, except that at flashing flanges of other construction, laps need not exceed flange width.
 3. Lap flashing over weather-resistant building paper at bottom and sides of openings.
 4. Lap weather-resistant building paper over flashing at heads of openings.
 5. After flashing has been applied, roll surfaces with a hard rubber or metal roller to ensure that flashing is completely adhered to substrates.

END OF SECTION 061643