

CGC SECUROCK® BRAND ULTRALIGHT GLASS-MAT SHEATHING



Lightweight, high-performance sheathing for warranted protection from the elements

- The lightest 12.7 mm (1/2") and 15.9 mm (5/8") Firecode® X glass-mat sheathing available—up to 15% lighter than other glass-mat sheathings
- Improved coated fiberglass facer mat to maximize coverage of air/water barrier systems
- Treated gypsum core, combined with fiberglass face and back, offers exceptional water resistance
- Scores and snaps easily for quick installation
- For use in most exterior systems when properly detailed by exterior finish manufacturer
- GREENGUARD Gold certified and qualifies as a low VOC emitting material (meets CA 01350)
- Meet or exceeds the requirements of ASTM C1177

DESCRIPTION

Available in 12.7 mm (1/2") and 15.9 mm (5/8") thicknesses, CGC Securock® Brand UltraLight Glass-Mat Sheathing panels are lightweight, noncombustible, moisture and mould-resistant panels designed for use under exterior cladding where conventional gypsum sheathing products have traditionally been used. They have been formulated to achieve all the strength and performance characteristics as standard CGC Securock Glass-Mat Sheathing at a significantly reduced weight. Example applications include under brick veneer, properly detailed Exterior Insulation Finish Systems (EIFS), clapboard siding, panel siding, shingle siding, shake siding and conventional stucco. The 15.9 mm (5/8") Firecode X panels are ULC Listed and cUL Classified for fire resistance, and can be used in any ULC and cUL designs where Type USGX panels are listed.

ADVANTAGES

Lightweight: Re-engineered high-strength lightweight gypsum core.

Mould-Resistant: High resistance to mould and mildew and scores a 10 (highest) when tested in accordance with ASTM D3273.

Resists Water: Glass-mat sheathing facer on both sides sheds water.

Quick, Dry Installation: Quick score and snap, no sawing or special tools and rapid screw or nail attachment.

Exposure: Can be exposed to weather for up to 12 months after application.

Warranted Performance: CGC Securock UltraLight Glass-Mat Sheathing is warranted for five years against manufacturing defects and for 12 months of weather exposure.

LIMITATIONS

1. Shall not be used as a nail base for exterior cladding.
2. Specific requirements regarding framing spacing, fastener spacing and fastener specifics to provide required lateral wind-load resistance are the responsibility of the design professional. (Refer to technical data and specifications on the following pages).
3. Offers resistance to weather but is not intended for constant exposure to water. Protect this and all similar materials from the eroding effects of cascading water. If extreme weather conditions are possible, the design professional should consider recommending that panel joints be treated or a weather-resistant barrier be installed.
4. Not recommended for lamination to masonry surfaces. Use furring or framing.
5. Maximum stud spacing is 610 mm (24") o.c.
6. Not designed as a finished surface.
7. Not intended for tile applications.

TEST DATA

	15.9 mm (5/8") CGC Securock® Brand UltraLight Glass-Mat Sheathing Firecode® X (UL Type USGX)	12.7 mm (1/2") CGC Securock UltraLight Glass-Mat Sheathing
Linear expansion with moisture change, mm/mm %RH (in/in %RH)	6.25 x 10 ⁻⁶	6.25 x 10 ⁻⁶
Coefficient of thermal expansion, mm/mm/°C (in/in/°F)	8.5 x 10 ⁻⁶	8.5 x 10 ⁻⁶
Flexural strength, parallel, N (lbf.)	>444 (100)	>356 (80)
Flexural strength, perpendicular, N (lbf.)	>787 (177)	>592 (133)
R-Value, K•m ² /w (°F • ft ² •hr/BTU)	0.09 (0.50)	0.07 (0.40)
Combustibility per CAN/ULC-S114 (ASTM E136)	Noncombustible	Noncombustible
Type X as defined in ASTM C1396 and with ASTM C1177 when tested in accordance with CAN/ULC-S101	Yes	No
ASTMD3273 score	10/10	10/10
Permeance, perms	1609 (28)	1693 (29)
Surface burning characteristics (per ASTM E84 or CAN/ULC-S102): flame spread/smoke developed	0/0	0/0
Humidified deflection, mm (inches)	<3 mm (1/8")	<6 mm (1/4")
Bending radius (dry) ¹	2.7 m (9')	2.7 m (9')
Tensile bond for both cementitious and acrylic adhesives (per ASTM C297) kPa (psi)	> 103 kPa (15psi)	> 103 kPa (15psi)

Note:

1. Due to the variability in environmental conditions of each installation, the framing and fastener spacing of curved walls should be reduced as the radius approaches the minimum allowed. At the minimum radius, it is recommended that fastener and frame spacing be 152 mm (6") o.c.

Allowable Uniform Wind Load kPa (psf) for 15.9 mm (5/8")-Thick Panels

Frame Spacing	305 mm (12")			406 mm (16")			610 mm (24")		
Fastener Spacing	102 (4)	152 (6)	203 (8)	102 (4)	152 (6)	203 (8)	102 (4)	152 (6)	203 (8)
Allowable Pressure	5.12 (107)	3.2 (67)	2.4 (50)	3.6 (75)	2.4 (50)	1.8 (38)	1.6 (34)	1.3 (27)	1.1 (24)

Allowable Uniform Wind Load kPa (psf) for 12.7 mm (1/2")-Thick Panels

Frame Spacing	305 mm (12")			406 mm (16")			610 mm (24")		
Fastener Spacing	102 (4)	152 (6)	203 (8)	102 (4)	152 (6)	203 (8)	102 (4)	152 (6)	203 (8)
Allowable Pressure	3.6 (75)	2.2 (46)	1.6 (34)	2.4 (51)	1.6 (34)	1.2 (26)	1.2 (26)	0.91 (19)	0.77 (16)

Notes: Applicable for both steel and wood framing. The values in this table are based on testing per ASTM E330 and represent the capacity of the sheathing to resist flexural failure or fastener pull-through with a 3.0 factor of safety. Capacities are based on a minimum fastener head diameter of 8 mm (0.325") (#6 bugle head screw). The withdrawal resistance of fasteners from framing is different on several factors, including but not limited to fastener type, fastener length and framing properties. The specification of fasteners is the responsibility of the Designer of Record. Manufacturer's recommendations are given below. These capacities assume continuous support of each stud flange over the full length of the sheathing panel. Allowable pressures are based on a maximum deflection limitation of L/360. Consult CGC Inc. representative for higher deflection limitations. Allowable pressure values are for short-term wind loads. Framing design is independent of these values. The design capacities of assemblies constructed with pneumatically driven fasteners are beyond the scope of this Data Sheet.

PRODUCT DATA

	15.9 mm (5/8") CGC Securock UltraLight Glass-Mat Sheathing Firecode® X (UL Type USGX)	12.7 mm (1/2") CGC Securock UltraLight Glass-Mat Sheathing
Thickness	15.9 mm (5/8")	12.7 mm (1/2")
Lengths ²	2438 mm (8')	2438 mm (8')
Width	1219 mm (4')	1219 mm (4')
Weight ³ , nominal	10.7 kg/m ² (2.2 lb./ft. ²)	8.3 kg/m ² (1.7 lb./ft. ²)
Edges	Square	Square

Notes:

2. Other sizes available by special order. Check with your local CGC representative for availability.
3. Represents approximate weight for design and shipping purposes. For specific product weight in your area, contact your local CGC representative or call the Customer Service Center at 800.387.2690

MOISTURE AND MOULD RESISTANCE

CGC Securock UltraLight Glass-Mat Sheathing resists moisture and mould and complies with ASTM C1177 for water resistance. In independent lab tests conducted on CGC Securock UltraLight Glass-Mat Sheathing at the time of manufacture per ASTM D3273, *Standard Test Method for Resistance to Growth of Mould on the Surface of Interior Coatings in an Environmental Chamber*, the panel score was 10.

This ASTM lab test may not accurately represent the mould performance of building materials in actual use. Given unsuitable project conditions during storage, installation or after completion, any building material can be overwhelmed by mould. To manage the growth of mould, 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.

APPLICATION TO WOOD STUDS FOR RACKING RESISTANCE

12.7 mm (1/2") CGC Securock UltraLight Glass-Mat Sheathing will provide an allowable racking resistance of 182 kg/m (122 plf) when sheathing is attached to wood framing spaced 406 mm (16") o.c. max. Application shall be by the use of nails: 11 gauge, 11 mm (7/16") diameter head, 38 mm (1-1/2") long, hot-dipped galvanized roofing nails, or #6—32 mm (1-1/4") long corrosion-resistant bugle head screws.

15.9 mm (5/8") CGC Securock UltraLight Glass-Mat Sheathing Firecode X will provide an allowable racking resistance of 205 kg/m (138plf) when sheathing is attached to wood framing spaced 610 mm (24") o.c. max. Application shall be by the use of nails: 11 gauge, 11 mm (7/16") diameter head, 38 mm (1-3/4") long, hot-dipped galvanized roofing nails, or #6—41 mm (1-5/8") long corrosion-resistant bugle head screws.

CGC Securock UltraLight Glass-Mat Sheathing shall be applied solidly to the wall framing with the long edges of the panels parallel to the framing with all edges backed by framing members. Design capacities are based on a maximum fastener spacing of 102 mm (4") o.c. around the perimeter of the sheathing panels and 203 mm (8") o.c. along the intermediate framing members. The maximum height-length ratio shall not exceed 1.5:1 to be considered a shear wall segment. Studs and plates shall be anchored to resist forces. Shear walls using CGC Securock UltraLight Glass-Mat Sheathing shall not be used to resist forces imposed by masonry or concrete walls. The design capacities of assemblies constructed with pneumatically driven fasteners are beyond the scope of this data sheet.

Note: Local code requirements may limit the racking resistance values to a prescribed load; be sure to check with the Authority Having Jurisdiction for the correct limitations when designing the racking resistance.

INSTALLATION

CGC Securock UltraLight Glass-Mat Sheathing shall be installed in accordance with CGC literature *CGC Securock® Brand Glass-Mat Sheathing Installation Guide* (EWB2451), Gypsum Association's *Application of Gypsum Sheathing* (GA-253) and ASTM C1280 *Standard Specification for Application of Gypsum Panel Products for Use as Sheathing*. If extreme weather conditions are possible, the design professional should consider recommending that panel joints be treated or a weather-resistive barrier be installed.

SPECIFICATIONS/PART 1: GENERAL

1.1 SCOPE

Specify to meet project requirements.

1.2 DELIVERY AND STORAGE OF MATERIALS

All materials shall be stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged materials shall be removed from the premises. Prior to installation, panels should be stacked flat (unless the contractor in charge of site safety directs otherwise to avoid point overloading of the structure or a tripping hazard) and protected from the elements.

Warning: Store all CGC Securock UltraLight Glass-Mat Sheathing panels flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized. 3.66 m (12 ft.) panels will ship in banded units. To ensure safety and performance of the product, use of a forklift truck with minimum 900 mm (35") span between the forks when moving the banded units is recommended. Keep the nylon bands on each lift until individual boards are moved.

PART 2: PRODUCTS

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- A. CGC Securock UltraLight Glass-Mat Sheathing – 12.7 mm (1/2") 15.9 mm (5/8") thick x 1220 mm (48") wide x 2440 mm – 3050 mm (8 ft. – 10 ft.) with square edges.
 - B. Nails – 38 mm (1-1/2") 44 mm (1-3/4"), 11-gauge hot-dipped galvanized roofing nails, 11 mm (7/16") diameter head (minimum).
 - C. Screws – 32 mm (1-1/4") 41 mm (1-5/8") #6 bugle head corrosion-resistant fasteners. 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 460 g of zinc per square metre (1.5 ounces of zinc per square foot) of surface area. Where liquid or fluid applied air and water barriers are used, or where no sheet-type weather-resistive barrier is used over the sheathing, screws shall have a corrosion resistance of more than 48 hours per ASTM B117. Stainless steel fasteners shall be used in coastal or aggressive environments. Consult the building code for other requirements.
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PART 3: EXECUTION

3.1 WALLS—SHEATHING

- A. 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.
 - B. Maximum fastener spacing for vertical surfaces is 203 mm (8") o.c. unless limited by wind load restrictions or wood stud racking resistance requirements outlined in Product Data section.
 - C. Maximum frame spacing is 610 mm (24") o.c.
 - D. Sheathing must be thoroughly dry prior to installing adhesively applied and self-adhered ice/water barriers and joint tape. Failure to do so will result in an insufficient bond to the sheathing.
 - E. Apply side labeled "CGC Securock®" toward exterior. Fit ends and edges closely but not forced together.
 - F. Fasteners shall be driven flush with the panel surface, without countersinking or deep enough to break the glass mat, and into the framing.
 - G. Unless otherwise specified or required, CGC Securock UltraLight Glass-Mat Sheathing may be applied either perpendicular or parallel to wood or steel framing.
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3.2 SOFFITS—SHEATHING APPLICATION

The maximum frame spacing for soffits is 406 mm (16") o.c. when installed parallel to the joists and 610 mm (24") o.c. when installed perpendicular to the joists. Maximum fastener spacing for horizontal surface (soffits) is 203 mm (8") o.c.

3.3 CONTROL JOINTS

Control joints shall be installed at building expansion joints. Location and design of these control joints shall be detailed by the design professional. As a general rule, 9 m (30') maximum spacing between surface control joints is recommended.

3.4 SHEAR- OR FIRE-RATED CONSTRUCTION

Shear- or fire-rated construction may have additional execution requirements as specified in local codes or the *ULC/UL Fire Resistance Directory*.

3.5 WEATHER-RESISTANT BARRIERS

No weather-resistant barrier is required for exposure warranty, but may be required by local codes or cladding system specifications.

3.6 EXTERIOR CLADDING APPLICATION

Consult exterior cladding manufacturer for installation instructions.

3.7 EIFS

EIFS, like all other cladding systems, is vulnerable to moisture that enters the cavity through wall penetrations, such as windows, doors, deck attachments and utility pipe chases, and at wall/roof intersections. For most residential and some commercial EIFS, manufacturers now specify a weather-resistive barrier for additional protection from moisture that penetrates the wall. In addition, manufacturers of windows, doors, flashing and sealants offer instruction on proper installation and maintenance of their products.

- EIMA (EIFS Industry Members Association), www.eima.com. This website has extensive information about proper installation of EIFS, sealants, flashing, proper attachment of EIFS to substrates, and inspection, maintenance and repair of EIFS claddings.
- ASTM E2112, *Standard Practice for Installation of Exterior Windows, Doors and Skylights*
- ASTM C1481, *Standard Guide for Use of Joint Sealants with EIFS*
- ASTM C1397, *Standard Practice for Application of Class PB EIFS*
- AWCI (Association of Wall and Ceiling Industry) offers EIFS Education and Certification Programs for EIFS applicators and also for building officials, inspectors and design professionals. Contractors whose personnel have successfully completed the AWCI EIFS training can be found on AWCI's EIFSmart Construction National Registry. See www.awci.org.

PRODUCT INFORMATION

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

GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit ul.com/gg.

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. For more information call Product Safety: 1-800-507-8899 or see the SDS at cgcinc.com. **KEEP OUT OF REACH OF CHILDREN.**

TRADEMARKS

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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 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 Safety Data Sheets and related literature on products before specification and/or installation.



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