



CGC SECUROCK® BRAND GLASS-MAT SHEATHING REGULAR AND FIRECODE® X

DATA SHEET

QUALITY HIGH PERFORMANCE SHEATHING DESIGNED FOR USE IN MOST EXTERIOR SYSTEMS

- Treated gypsum core combined with fibreglass 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
- Meets or exceeds the requirements of ASTM C1177



DESCRIPTION

CGC Securock® Brand Glass-Mat Sheathing is a noncombustible, moisture and mould-resistant panel designed for use under exterior claddings where conventional gypsum sheathing products have traditionally been used, such as brick veneer, properly detailed Exterior Insulation Finish Systems (EIFS), clapboard siding, panel siding, shingle siding, shake siding and conventional stucco.

ADVANTAGES

- MOULD-RESISTANT:** High resistance to mould and mildew (ASTM D3273 test score = 10).
- 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 Glass-Mat Sheathing is guaranteed for 5 years against manufacturing defects and for 12 months of weather exposure.

LIMITATIONS

1. CGC Securock Glass-Mat Sheathing shall not be used as a nailing 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. CGC Securock Glass-Mat Sheathing 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.
4. Not recommended for lamination to masonry surfaces. Use furring strips or framing.
5. Maximum stud spacing is 610 mm (24") o.c.
6. CGC Securock Glass-Mat Sheathing is not a finished surface.
7. CGC Securock Glass-Mat Sheathing is not intended for tile applications.
8. Gypsum sheathing is not recommended where it will be in contact with surfaces or exposed to continuous temperatures exceeding 52 °C (125 °F).
9. For protected exterior ceiling and soffit applications, the panels must be protected from direct exposure to weather. Please refer to the *CGC Gypsum Construction Handbook* for installation recommendations.

PRODUCT DATA

Dimensions	12.7 mm (1/2") thick, 1220 mm (48") wide, 2440 mm (8'), 2745 mm (9') and 3050 mm (10') long 15.9 mm (5/8") thick, 1220 mm (48") wide, 2440 mm (8'), 2745 mm (9') and 3050 mm (10') long Other sizes available on special order.
Weight	12.7 mm (1/2") - 9.8 kg/m ² (2.0 lb./ft. ²) 15.9 mm (5/8") - 13.2 kg/m ² (2.7 lb./ft. ²)
Edge	Square edges
Fire Performance	CGC Securock Glass-Mat Sheathing is noncombustible when tested in accordance with CAN/ULC S114. Surface burning characteristics—flame spread 0, smoke developed 0, when tested in accordance with CAN/ULC S102. Fire resistance—15.9 mm (5/8") panels meet the requirements of Type X as defined in ASTM C1396 and ASTM C1177 when tested in accordance with CAN/ULC S101. cUL Classified for fire resistance. See Underwriters Laboratories' Fire Resistance Directory for specific designs.
Tensile Bond	Exceeds 103 kPa (15 psi) requirements for both cementitious and acrylic adhesives per ASTM C297.



PRODUCT DATA (CONTINUED)

	12.7 mm (1/2") CGC SECUROCK® BRAND GLASS-MAT SHEATHING	15.9 mm (5/8") CGC SECUROCK GLASS-MAT SHEATHING
Vapour Permeance ng/(Pa·s·m²) [Perm]	1425 [25]	1480 [26]
Thermal Resistance Per ASTM C518 RSI ("R") (in. ft.² °F)/Btu)	0.07 (0.4)	0.09 (0.5)
Bending Radius* Dry	2.7 m (9 ft.)	2.7 m (9 ft.)

*Recommended fastener spacing is 150 mm (6") o.c. when panels are bent.

COMPLIANCE

Meets or exceeds the physical property requirements of ASTM C1177. 15.9 mm (5/8") CGC Securock Glass-Mat Sheathing cUL classified for fire resistance, 12.7 mm (1/2") and 15.9 mm (5/8") to surface burning characteristics and noncombustibility.

TECHNICAL DATA

PHYSICAL PROPERTIES PER ASTM C1177	12.7 mm (1/2") CGC SECUROCK® GLASS-MAT SHEATHING	15.9 mm (5/8") CGC SECUROCK GLASS-MAT SHEATHING
Flexural Strength		
– Bearing edge perpendicular to board length	476 N (107 lbf)	654 N (147 lbf)
– Bearing edge parallel to board length	356 N (80 lbf)	445 N (100 lbf)
Water Absorption—% by wt. 2 hours	10	10
Nail-Pull Resistance	356 N (80 lbf)	400 N (90 lbf)
Weight	9.8 kg/m² (2.0 psf)	13.2 kg/m² (2.7 psf)
Surface-Burning Characteristics—flame/smoke	0/0	0/0
Coefficient of Thermal Expansion	15.3 x 10 ⁻⁶ mm/mm/°C (8.5 x 10 ⁻⁶ in/in/°F)	15.3 x 10 ⁻⁶ mm/mm/°C (8.5 x 10 ⁻⁶ in/in/°F)

ALLOWABLE UNIFORM WIND LOAD (kPa) FOR 15.9 mm (5/8") PANELS									
Framing Spacing mm	305			406			610		
Fastener Spacing mm	100	150	200	100	150	200	100	150	200
Deflection 1/240	4.8	3.2	2.4	3.6	2.4	1.8	1.2	1.2	1.2
1/360	4.8	3.2	2.4	2.7	2.4	1.8	0.8	0.8	0.8
1/540	4.4	3.2	2.4	1.8	1.8	1.8	0.5	0.5	0.5
1/720	3.3	3.2	2.4	1.3	1.3	1.3	0.4	0.4	0.4

ALLOWABLE UNIFORM WIND LOAD (psf) FOR 15.9 mm (5/8") THICK PANELS									
Framing Spacing mm	12"			16"			24"		
Fastener Spacing mm	4	6	8	4	6	8	4	6	8
1/240	100	66	50	75	50	37	25	25	25
1/360	100	66	50	57	50	37	17	17	17
1/540	91	66	50	38	38	37	11	11	11
1/720	68	66	50	28	28	28	8	8	8

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 8.3 mm (0.325") (#6 buglehead 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 below. These capacities assume continuous support of each stud flange over the full length of the sheathing panel. Framing design is independent of these values.

– In independent lab tests conducted on CGC Securock Glass-Mat Sheathing 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*, the panel score was 10. The 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 STUD WALLS FOR RACKING RESISTANCE

For resisting wind and seismic loads, the 15.9 mm (5/8") thick CGC Securock® Brand Glass-Mat Sheathing will provide an allowable racking value of 1.5 kN/m (103 plf) when applied to wood stud walls as noted in the following paragraph. The maximum height-length ratio shall not exceed 1.5:1 to be considered as a shear wall segment. Studs and plates shall be anchored to resist design forces. Shear walls using CGC Securock Glass-Mat Sheathing shall not be used to resist forces imposed by masonry and concrete walls.

The CGC Securock Glass-Mat Sheathing panels shall be applied solidly to the wall framing with the long edge of the panels parallel to the framing with all edges backed by framing members. Application shall be by the use of nails: 11 gauge, 11 mm (7/16") diameter head, 44 mm (1-3/4") long, hot-dipped galvanized roofing nails spaced 102 mm (4") around the perimeter of the panel and 203 mm (8") along the intermediate framing members. Alternatively, #6 - 42 mm (1-5/8") corrosion-resistant buglehead screws may be used with the same fastener pattern and may be substituted for the nails. The stud spacing shall not exceed 610 mm (24") on center.

INSTALLATION

CGC Securock Glass-Mat Sheathing may be used under exterior claddings where conventional gypsum sheathing products have traditionally been used; such as brick veneer, properly detailed Exterior Insulation Finish Systems (EIFS), clapboard siding, panel siding, shingle siding, shake siding and conventional stucco. If extreme weather conditions are possible, the design professional should consider recommending that panel joints be treated with a low modulus silicone sealant, with 51 mm (2") wide CGC Durock™ Brand Tape embedding in the low modulus silicone sealant. Allow sealant to cure per manufacturers instructions prior to installation of weather resistive barrier or cladding system.

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 or deteriorated 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 reasonably protected from the elements.

Warning: Store all CGC Securock Glass-Mat Sheathing panels flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.

**PART 2:
PRODUCTS**

- A. CGC Securock Glass-Mat Sheathing, 12.7 mm (1/2") 15.9 mm (5/8") thick, 1220 mm (48") wide, 2440, 2745 and 3050 mm (8', 9' and 10') long 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") 42 mm (1-5/8") #6 buglehead 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 800 hours per ASTM B117. Stainless steel fasteners shall be used in coastal or aggressive environments. Consult the building code for other requirements.

**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 (walls) is 203 mm (8") o.c.
- 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 required, CGC Securock Glass-Mat Sheathing may be applied either perpendicular or parallel to wood or steel wall framing.



**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, a 9 m (30 foot) 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 manufacturers 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 E2112-07, *Standard Practice for Installation of Exterior Windows, Doors and Skylights*
- ASTM C1481-00 (2006) *Standard Guide for Use of Joint Sealants with Exterior Insulation and Finish Systems (EIFS)*
- ASTM C1397-05, *Standard Practice for Application of Class PB Exterior Insulation and Finish Systems (EIFS)*
- AWC (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 AWC EIFS training can be found on AWC's 'EIFSmart Construction National Registry'. See www.awci.org.

PRODUCT INFORMATION

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

NOTE

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

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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.

