

# Fiberock® Sheathing



## Aqua-Tough™

### Superior strength and water and mold resistance to help eliminate moisture problems

- Uniform composition provides strength and water resistance
- Maintains strength when surface is cut or abraded
- Provides superior fastener-holding strength
- Can be exposed to weather for up to 6 months after application
- Can be installed on 24" o.c. framing for 30 psf or lower wind loads
- Maintains flatness between framing members
- For use in most exterior systems

### Description

FIBEROCK® brand AQUA-TOUGH™ sheathing is a revolutionary product designed for use as a sheathing in most exterior systems. Manufactured using USG's unique patented technology, FIBEROCK sheathing offers exceptional strength, durability and superior water resistance.

Unlike other gypsum sheathings, FIBEROCK sheathing derives both strength and water resistance from its uniform core formulation. FIBEROCK sheathing is strong and water resistant all the way through its cross section, and won't lose its strength when cut.

### Advantages

**Improved Long-Term Performance** Testing has shown that FIBEROCK sheathing offers superior long-term bonding, flexural strength, and fastener-holding strength when compared to glass-mat-faced or paper-faced gypsum sheathing products.

**Mold Resistant** In independent lab tests per ASTM D3273 "Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber," FIBEROCK sheathing as manufactured achieved the highest score, 10.

**Superior Flatness** Will stay flat over framing, reducing exterior system installation time.

**Warranted Performance** FIBEROCK sheathing is warranted for 10 years against manufacturing defects, and for 6 months of weather exposure.

**Superior Strength** Because of FIBEROCK sheathing's superior strength and fastener-holding power, greater framing spacing and fastener spacing may be used in many assemblies, reducing total system installation costs.

**Non-Irritating Composition** Because FIBEROCK sheathing does not contain glass-mat facing, there are no loose glass fibers to irritate installers' skin.

**Better Fastener Holding** FIBEROCK sheathing has no paper or glass-mat facing, which fastener heads often tear or punch through. The result is greater fastener-holding power.

**Better Bonding** FIBEROCK sheathing provides superior adhesive attachment when compared to glass-mat-faced or paper-faced gypsum sheathing products.

**Fire Performance** Code approved for use in noncombustible construction. Surface burning characteristics—Flame spread 5, smoke developed 0, when tested in accordance with ASTM E84. Thermal barrier—Provides a thermal barrier exceeding 15 minutes based upon testing. Fire resistance—5/8" panels meet the requirements of Type X as defined in ASTM C1396 and ASTM C1278. UL Classified as to fire resistance. See Underwriters Laboratories' Fire Resistance Directory for specific designs.

### Limitations

1. FIBEROCK sheathing must not be used as a nailing base.
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.

### Product Data

**Dimensions** 1/2" or 5/8" thick, 48" wide, 8'-12' long. Other sizes available on special order.

**Weight** Approximately 2.2 psf for 1/2" thickness, 3 psf for 5/8" thickness.

**Edge Configuration** Square edges.

**Compliance with Standards** Meets ASTM C1278 standards and meets or exceeds the physical property requirements of ASTM C1177, ASTM C1396 and ASTM C931.

**Code Approvals** SBCCI Report Number 2006; ICBO ER-5578, BOCA 99-54.

		1/2" FIBEROCK Sheathing	5/8" FIBEROCK Sheathing
<b>Perm Ratings</b>		35	28
<b>Thermal Resistance</b> ("R") (in. ft. <sup>2</sup> °F/Btu)		.5	.6
<b>Bending Radius*</b>	Dry	30 ft. min.	30 ft. min.
	Wetted	16 ft. min.	16 ft. min.

\* Number of fasteners must be doubled when panels are bent.

## Technical Data

Physical Properties	Thickness (in)	ASTM Test Reference	FIBEROCK AQUA-TOUGH Sheathing
Flexural Strength			
– Bearing edge perpendicular to board length—psi	1/2	C473	840
– Bearing edge parallel to board length—psi	1/2	C473	840
Water Absorption—% by wt. 2 hrs	1/2	C473	5
Nail Pull Resistance (0.4" head diameter)—lb.	1/2	C473	120
Weight—psf (1/2" thick)	1/2	C473	2.2
Surface Burning Characteristics—flame/smoke	1/2	E84	5/0
Typical Thermal Properties	Thickness (in.)	"C"	"R"
FIBEROCK Brand AQUA-TOUGH Sheathing	1/2	3.33	0.30
FIBEROCK Brand AQUA-TOUGH Sheathing	5/8	2.66	0.38

### Wind Load Design Table

Wall Height	Stud Spacing	Design Wind Load <sup>a,b,c,d,e</sup>			
		20 psf	30 psf	40 psf	50 psf
10'	12" o.c.	Stud: 350S162-33	Stud: 350S162-33	Stud: 400S162-33	Stud: 550S162-33
		Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 12" o.c.
	16" o.c.	Stud: 350S162-33	Stud: 400S162-33	Stud: 550S162-33	Stud: 550S162-33
		Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 1/2" FIBEROCK Fasteners: 8" o.c.
	24" o.c.	Stud: 400S162-33	Stud: 550S162-33	Stud: 550S162-33	Stud: 600S162-33
		Panel: 1/2" FIBEROCK Fasteners: 12" o.c.	Panel: 5/8" FIBEROCK Fasteners: 12" o.c.	Panel: 2 layers 1/2" FIBEROCK Fasteners: 8" o.c.	Panel: 2 layers 1/2" FIBEROCK Fasteners: 6" o.c.

### Allowable Wind Loading

Product	Stud Type	Stud Spacing (in.)	Insulation Board Type	Fastener Spacing (in.)	Typical Allowable Load (psf) <sup>f,g,h</sup>
<b>Mechanically Attached Insulation Board</b>	Wood	16	exp. polystyrene (EPS)	8	30
	Steel (20 ga. min.)	16	exp. polystyrene (EPS)	8	25

**Notes** (a) Stud sizes are based on Steel Stud Manufacturers Assoc. Product Technical Information and assume sheathing or wallboard on each flange of stud. Maximum allowable deflection is L/240 wall height. Stud designation is xx8yy-zz, where xx = depth in 1/100 inches, yy = flange width in 1/100 inches, zz = steel thickness in 1/1000 inches. Members up to 8" deep were sized assuming 1-5/8" flange width and 20 gauge (0.033") steel thickness only. Shallower studs may be used if steel gauge is increased accordingly—consult SSMA design tables for guidance. (b) Panel size and fastener spacing is based on a factor of safety = 3 applied to published flexural strength and nail pull capacities for FIBEROCK. (c) Design is based on structural considerations only. Other design considerations (e.g., fire-rated construction) may dictate stricter requirements. (d) The panels are not required to be laminated together, where double layer of panels is shown. (e) See your USG Sales Representative for wall heights not listed. (f) Allowable loads based on board and fastener failure modes only. Design of framing is the responsibility of the architect or engineer of record. (g) For wind loads beyond this table, consult with the EIFS manufacturer. (h) Maximum positive or negative wind load.

<b>Installation</b>		FIBEROCK sheathing may be used under exterior claddings where conventional gypsum sheathing products have traditionally been used, such as brick veneer, clapboard siding, panel siding, shingle siding, shake siding, stucco.
<b>Specifications</b>		
<b>Part 1: General</b>	<b>1.1 Scope</b>	Specify to meet project requirements.
	<b>1.2 Qualifications</b>	All materials, unless otherwise indicated, shall be manufactured by United States Gypsum Company and shall be installed in accordance with its current printed directions.
	<b>1.3 Delivery and Storage of Materials</b>	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. Damaged or deteriorated materials shall be removed from the premises. 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. <b>Warning:</b> Store all FIBEROCK panels flat. Panels are heavy and can fall over, causing serious injury or death. Do not move unless authorized.
	<b>1.4 Panelization</b>	All panels should be stored in a manner that protects them from damage and the elements.
<b>Part 2: Products</b>		<ul style="list-style-type: none"> <li>A. FIBEROCK sheathing, (1/2") (5/8") thick x 48" wide x 8'-12' long with square edges.</li> <li>B. Nails—(1-1/2") (1-3/4"), 11-gauge hot-dipped galvanized roofing nails, 7/16" diameter head.</li> <li>C. Screws—(1-1/4") (1-5/8") (2-1/4") wood or steel type USG exterior screws or corrosion-resistant fasteners.</li> </ul>
<b>Part 3: Execution</b>	<b>3.1 Walls— Sheathing Application</b>	<ul style="list-style-type: none"> <li>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>Note:</b> For systems where the weather barrier entirely covers the fasteners, corrosion-resistant fasteners as defined by 1997 UBC Section 1403.3, or equivalent, must be used. For systems where the weather barrier is behind the panels and screws, USG exterior screws must be used.</li> <li>B. Apply FIBEROCK sheathing with smooth side toward exterior. Fit ends and edges closely, but not forced together.</li> <li>C. Minimum fastener penetration into wood framing is 3/4" and into steel framing is 3/8".</li> <li>D. Screws with low-profile heads should be used where screwheads protrude beyond the plane of framing.</li> <li>E. Unless otherwise specifically required, FIBEROCK sheathing may be applied either perpendicular or parallel to wood or steel framing spaced 24" o.c. maximum.</li> <li>F. Maximum nail spacing for vertical surfaces (walls) is 8" o.c. Maximum screw spacing for vertical surfaces is 12" o.c.</li> </ul>
	<b>3.2 Soffits— Sheathing Application</b>	Maximum nail spacing for horizontal surfaces (soffits) is 6" o.c. Maximum screw spacing for horizontal surfaces is 12" o.c.
	<b>3.3 Control Joints</b>	Control joints shall be installed at building control joints. Surface control joints are required to accommodate system movement. Location and design of these control joints shall be detailed by the design professional.
	<b>3.4 Shear- or Fire-Rated Construction</b>	Shear- or fire-rated construction may have additional execution requirements as specified in local codes or the UL Fire Resistance Directory.

**3.5  
Weather-Resistant  
Barriers**

No weather-resistant barrier is required for exposure warranty. Where system air- and water-penetration resistance are required while the building is being enclosed, joints between FIBEROCK sheathing can be treated with a sealant such as Dow Corning® 795 silicone sealant (or equivalent), or BITUTHENE® 3000 tape (or equivalent).

**3.6  
Exterior Cladding  
Application**

Consult exterior cladding manufacturers for installation instructions.

**Submittal  
Approvals:**

<b>Job Name</b>	
<b>Contractor</b>	<b>Date</b>

**Product Information**

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

**Trademarks**

The following trademarks used herein are owned by USG Corporation or its subsidiaries: AQUA-TOUGH, FIBEROCK, USG. BITUTHENE is a registered trademark of W.R. Grace & Co. DOW CORNING is a registered trademark of Dow Corning.

**Note**

Products described here may not be available in all geographic markets. Consult your United States Gypsum 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 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 material safety data sheets and related literature on products before specification and/or installation.

