

# USG FIBEROCK® BRAND TILE BACKERBOARD AND UNDERLAYMENT



## Environmentally sustainable, water-resistant panel for interior tile backer and underlayment needs

- Certified recycled content of 97 percent
- Uniform composition provides both strength and water resistance
- Use in both wet and dry areas throughout the home
- Ideal under tile, stone, vinyl, hardwood flooring, laminate flooring, carpeting and countertops
- Superior tile bond—three times industry standard
- Recognized by major resilient-flooring and adhesive manufacturers
- Free of resins, adhesives and solvents that might stain a vinyl floor
- Provides a smooth, flat, paintable surface for wall applications
- Easy to cut, fasten and install
- Made in the U.S.A.

## DESCRIPTION

USG Fiberock® Brand Tile Backerboard and Underlayment panels are manufactured from an environmentally sustainable, specially engineered combination of synthetic gypsum and cellulose fibers. USG Fiberock Tile Backerboard and Underlayment panels have an integral water-resistant composition that offers durability, superior performance and exceptional tile bond. USG Fiberock Tile Backerboard and Underlayment panels are engineered to meet water-, mold- and indentation-resistance needs under and/or behind tile, resilient flooring, carpeting, hardwood flooring and laminate flooring in new construction and/or remodeling. USG Fiberock Tile Backerboard is also an ideal substrate for painted wall surfaces, when transitioning from tile to paint.

USG Fiberock Underlayment provides a smooth, flat surface that resists swelling and warping often seen with wood-based underlayments, and contains none of the resins, adhesives or solvents that can stain floor covering materials. It also offers greater resistance to indentation than other underlayment products and can be used throughout a home—in both wet and dry areas—regardless of the flooring material chosen.

## PRODUCT DATA

### SIZES AND PACKAGING

Size (thickness x width x length)	Units (pcs.)
1/4 in. x 4 ft. x 4 ft.	60
1/4 in. x 3 ft. x 5 ft.	60
3/8 in. x 4 ft. x 4 ft.	60
3/8 in. x 4 ft. x 8 ft.	40
3/8 in. x 3 ft. x 5 ft.	60
1/2 in. x 3 ft. x 5 ft.	50
1/2 in. x 4 ft. x 8 ft.	30
5/8 in. x 3 ft. x 5 ft.	40
5/8 in. x 4 ft. x 8 ft.	24

## STANDARDS

USG Fiberock Tile Backerboard and Underlayment panels meet ASTM standard C1278. Residential and light-commercial performance rating based on Robinson Floor Test (ASTM C627), conducted by The Tile Council of North America (TCNA).

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**AVAILABILITY**

USG Fiberock Tile Backerboard and Underlayment panels are distributed throughout the United States. Contact a United States Gypsum Company sales office or sales person for additional information.

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**COMPOSITION AND MATERIALS**

USG Fiberock Tile Backerboard and Underlayment panels are made from 97 percent recycled material.

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**DELIVERY AND STORAGE OF MATERIALS**

All materials should be delivered and stored in their original unopened package and stored in an enclosed shelter providing protection from damage and exposure to the elements. Store all USG Fiberock Tile Backerboard and Underlayment panels flat.

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**ENVIRONMENTAL CONDITIONS**

In cold weather and during USG Fiberock Tile Backerboard and Underlayment panel and tile installation, temperatures within the building shall be maintained

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**APPLICATIONS**

Wood framing shall approximate the moisture content it will reach in service by allowing the enclosed building to stand as long as possible prior to the application of the USG Fiberock Tile Backerboard and Underlayment panels.

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**INSTALLATION****PANEL LAYOUT**

- A.** For flooring applications, lay cut edges against the wall; only factory edges should be joined. Begin laying panels at one corner. Maintain 1/4 in. space between panels and perimeter walls. Stagger joints a minimum of 16 in. so that four panel corners never meet, and offset end and edge joints of panels a minimum of 12-16 in. from subfloor panel joints. Adjoin panel edges and ends lightly together. A maximum 1/32 in. gap is allowed.
  - B.** For wall applications, install panels with ends and edges closely abutted, but not forced together. Stagger end joints in successive order.
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**TILE AND STONE APPLICATIONS**

- A.** For flooring applications over a wood-based substrate, laminate USG Fiberock Underlayment to subfloor using Type 1 organic adhesive or latex-modified thin-set mortar or dry-set mortar. Fasten to subfloor with 1-1/4 in. USG Durock™ Brand Tile Backer Screws for wood framing (or equivalent) or 1-1/2 in. hot-dipped galvanized roofing nails spaced 8 in. o.c. in both directions with perimeter fasteners at least 3/8 in. and less than 5/8 in. from ends and edges. Drive nails and screws so that bottoms of heads are flush with panel surface to ensure firm panel contact with subfloor. Do not overdrive fasteners.
- B.** For wall application, fasten USG Fiberock Tile Backerboard panels to framing with specified fasteners. Drive fasteners into field of panels first, working toward ends and edges. Hold panels in firm contact with framing while driving fasteners. Space fasteners a maximum 8 in. o.c. for walls, 6 in. o.c. for ceilings, with perimeter fasteners at least 3/8 in. and less than 5/8 in. from ends and edges. Drive nails and screws so that bottoms of heads are flush with panel surface to ensure firm panel contact with framing. Do not overdrive fasteners past panel surface. For steel stud applications (20 ga. or equivalent) use 1-1/4 in. or 1-5/8 in. USG Durock™ Tile Backer Screws for steel framing (or equivalent). For wood stud applications, use 1-1/4 in., 1-5/8 in., or 2-1/4 in. USG Durock™ Tile Backer Screws for wood framing (or equivalent) or 1-1/2 in. hot-dipped galvanized roofing nails.
- C.** For countertop applications, install minimum 3/4 in. exterior grade plywood or OSB base across cabinet supports. Cover plywood base with USG Durock™ Brand Tile Membrane, 15 lb. felt or 4 mil polyethylene and attach with 1/4 in. galvanized staple. Fit ends and edges of USG Fiberock underlayment closely but not forced together. Stagger panel joints from plywood base joints. Space fasteners 8 in. o.c. around the perimeter and in the field of the board.
- D.** Finishing panel joints: In areas that will be tiled, fill joints with latex-fortified mortar or Type 1 organic adhesive and immediately embed alkali-resistant, fiberglass mesh joint tape. In wall applications that will be painted: For taping use USG Sheetrock® Brand Paper Joint Tape with USG Sheetrock® Brand Durabond® Joint Compound. For finishing use USG Sheetrock® Brand All Purpose Joint Compound. Do not use USG Sheetrock® Brand Plus 3®, All Purpose or Midweight™ Joint Compounds on USG Fiberock Tile Backerboard and Underlayment panels.

#### TILE AND STONE APPLICATIONS CONT.

- E. Cut USG Fiberock Tile Backerboard and Underlayment panels to size with a utility knife and straight edge. Use power saw only if it is equipped with a dust collection device and a NIOSH/MSHA-approved respirator is worn. When using the score-and-snap method, score the panel twice and snap the panel away from the cut face. If a power-operated saw is used, a low-RPM portable saw with a 3-1/2 in. carbide-tipped blade is recommended. When necessary to obtain neatly fitting joints, use a rasp or surform to smooth cut edges. Holes for pipes, fixtures and other small openings can be cut out with a saw or a drywall router equipped with a special bit.
- F. If waterproofing is desired, use USG Durock™ Brand Waterproofing Membrane. See *USG Durock™ Brand Waterproofing Membrane* submittal (CB595) for product information. Or use USG Durock™ Brand Tile Membrane with USG Durock™ Brand Tile Membrane Adhesive. See *USG Durock™ Brand Tile Membrane* submittal (CB492) for product information.

#### RESILIENT FLOORING APPLICATIONS

- A. Fasten USG Fiberock Underlayment to subfloor with minimum 1/4 in. crown chisel point staples, hot-dipped galvanized ring shank nails or corrosion-resistant screws. Fastener length should be approximately equal to combined thickness of underlayment and subfloor. Fasteners should not penetrate through subfloor; long fasteners that penetrate the floor joists may compromise the ability of the subfloor to expand and contract uniformly with natural variations in temperature and humidity. Critical lighting situations should be considered when determining panel layout.
- B. Begin fastening where three panels intersect. Affix fasteners along joints in a zipper pattern at 1 in. o.c., 1/4 in. from panel edge. Install fasteners at 4 in. o.c. in the field of panels. When using pneumatic tools, apply sufficient pressure on gun to prevent the tool from bouncing. Set pneumatic tool pressure to drive fasteners flush or slightly below underlayment surface. To prevent fastener heads from telegraphing through resilient floor covering, do not countersink more than 1/16 in. below surface. Fasten one panel at a time. Begin at one end and fan out across the panel.
- C. Installing Panels Over Existing Vinyl Floor Covering—Do not install underlayment over cushion-backed vinyl. Ensure that existing floor is level, fully adhered and well bonded and meets appropriate design requirements. Repair missing or broken tiles, curling seams, severe gouges, protrusions of surface and any other damage with a high-quality floor leveler. Follow floor-covering manufacturer's recommendations for installations over existing floors.
- D. Finishing Panel Joints—Use patching compound sparingly to fill wide joints, repair any surface voids and correct joint lippage (panel edge sitting above or below the floor plane). Carefully fill joints wider than 1/32 in. and any surface imperfections with only enough material to infill void—do not feather. Correct joint lippage by applying patching compound to low side only and feathering to level. Allow compound to dry completely (90 min. minimum), then lightly sand or scrape, taking care not to scuff panel surface; use a flat blade to scrape away any excess material. Remove dust, dirt and debris from underlayment surface before application of floor covering.
- E. Applying Floor Covering—Refer to floor-covering manufacturer's recommendations for proper procedures. For proper trowel selection, refer to adhesive manufacturer's recommendation for nonporous substrates. Follow floor-covering and/or adhesive manufacturer's guidelines for setting times before allowing traffic on the finished floor. Follow floor-covering manufacturer's recommendations for preventive maintenance, cautions and procedures.

#### LIMITATIONS

- 1. For interior use only. USG Fiberock Tile Backerboard and Underlayment should not be used in exterior applications.
- 2. Do not use in areas subject to prolonged exposure to standing water; for instance, gang showers, saunas and hottub decks. If waterproofing is desired, use USG Durock™ Brand Waterproofing Membrane. See *USG Durock™ Brand Waterproofing Membrane* submittal (CB595) for product information. Or use USG Durock™ Brand Tile Membrane with USG Durock™ Brand Tile Membrane Adhesive. See *USG Durock™ Brand Tile Membrane* submittal (CB492) for product information.
- 3. Wall applications: Maximum stud spacing: 16 in. o.c. Framing shall be designed (based on stud properties alone) not to exceed L/360 deflection for tile, L/240 for surfaces that will be painted. Maximum fastener spacing: 8 in. o.c. for wood and steel framing; 6 in. o.c. for ceiling applications.
- 4. Maximum dead load for ceiling system is 7.5 psf.
- 5. Do not use 1/4 in. or 3/8 in. USG Fiberock panels for wall or ceiling applications.
- 6. Steel framing must be 20-gauge equivalent or heavier.
- 7. Do not use drywall screws or drywall nails.
- 8. Do not use drywall joint tape where tile or stone will be installed.

**LIMITATIONS CONT.**

9. Floor tile applications: Maximum joist spacing 24 in. o.c. The subfloor system should be designed with a minimum deflection limit of L/360 for the span. Some finish materials may require a more rigid subassembly (such as large format tile and natural stone products). In these cases, follow the manufacturer’s minimum requirements. The subfloor should be APA Span-Rated Plywood or OSB with an Exposure 1 classification or better with tongue and groove or back blocked at the unsupported edges.
10. Do not install directly over concrete subfloors.
11. USG Fiberock Tile Backerboard and Underlayment panels are not designed for use as a structural panel.
12. USG Fiberock Tile Backerboard and Underlayment panels must be finished—tiled or painted—not used as a finish surface.
13. USG Fiberock Tile Backerboard and Underlayment panels should not be exposed to sustained temperatures above 125°F (51.6°C).

**TECHNICAL DATA**

Property	Unit of Measure	ASTM Test Method	5/8 in. USG Fiberock® Brand Tile Backerboard	1/2 in. USG Fiberock® Brand Tile Backerboard	3/8 in. USG Fiberock® Brand Underlayment	1/4 in. USG Fiberock® Brand Underlayment
Flexural Strength	lbf	C473	> 155	> 110	> 70	> 40
Compressive Strength	psi	n/a	> 500	> 500	>1000	>1250
Shear Bond Strength	psi	n/a	> 50	> 50	> 50	> 50
Water Absorption	% by wt. 24 hrs.	C473	< 5	< 5	<10	<10
Surface Water Absorption	Grams	C473	1.6	1.6	1.6	1.6
Nail-Pull Resistance	lb. (0.4 in. head diameter, wet or dry)	C473	> 145	> 120	> 90	> 70
Weight	psf	C473	3.1	2.4	1.9	1.4
Mold Resistance	—	D3273	10 (no growth)	10 (no growth)	10 (no growth)	10 (no growth)
Surface Burning Characteristics	flame/smoke	E84	5/0	5/0	n/a	n/a
Thermal	“R”/k value	C518	—	0.39/1.27	—	—
Standard Method for Evaluating Ceramic Floor Tile Installation Systems	Passes cycles 1-6	C627	Light Commercial	Light Commercial	Light Commercial	Light Commercial

**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**

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**SAFETY FIRST!**

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

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F103-USA-ENG/rev. 3-17  
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