

USG Durock™ Brand Glass-Mat Tile Backerboard



FEATURES & BENEFITS

- **Lightweight and easy to score, snap and fasten**
- **Moisture- and mold-resistant substrate**
- **Scores the highest achievable rating (10 out of 10) for mold resistance according to ASTM D3273**
- **Proprietary coating provides exceptional tile bond performance**

DESCRIPTION

USG Durock™ Brand Glass-Mat Tile Backerboard is a water- and mold-resistant coated glassmat tile backerboard. The face of the panel is treated with a proprietary coating for moisture resistance and enhanced tile bond, making it ideal as a tile substrate for dry and/or wet areas Res 1 (Residential dry), Res 2 (Residential limited water exposure), Res 3 (Residential wet), Com1 (Commercial dry), Com2 (Commercial limited water exposure), Com3 (Commercial wet) as defined by the Tile Council of North America Handbook 2018. The 15.9 mm panels are Underwriters Laboratories Inc. (UL) Classified for fire resistance, and can be used in any UL Design where Type SGX panels are listed.

PRODUCT DATA SIZES AND PACKAGING

Size (thickness x width x length)	Units (pcs)
12.7 mm x 1220 mm x 2440 mm	50
12.7 mm x 1220 mm x 1524 mm	50
15.9 mm x 1220 mm x 2440 mm	40

STANDARDS

USG Durock™ Glass-Mat Tile Backerboard exceeds ASTM C1178, which is the standard specification for coated glass-mat water-resistant gypsum backing panels.

COMPOSITION AND MATERIALS

USG Durock™ Glass-Mat Tile Backerboard consists of a treated water-resistant gypsum core that is covered with a coated fiberglass mat facer and back and has a proprietary coating surface. The panels are square edge.

STORAGE OF MATERIALS

All materials should be delivered and stored in their original packaging and stored in an enclosed shelter providing protection from damage and exposure to the elements. Store all panels flat.

ENVIRONMENTAL CONDITIONS

In cold weather and during USG Durock™ Glass-Mat Tile Backerboard and tile installation, temperatures within the building shall be maintained within the range of 4-38 °C. Adequate ventilation shall be provided to carry off excess moisture. Low temperatures and high relative humidity will increase the curing time needed.

INTERIOR 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 backerboard. Panels are not intended for constant exposure to water. Protect from immersion in water and the eroding effects of cascading water.

INSTALLATION

- A. Install backerboard with ends and edges closely abutted but not forced together. Stagger end joints in successive courses.
- B. For flooring applications over a wood-based substrate, laminate USG Durock™ Glass-Mat Tile Backerboard to subfloor using Type 1 organic adhesive or latex-modified thin-set mortar suitable for bonding cement board. Fasten to subfloor with 32 mm USG Durock™ Brand Tile Backer Screws for wood framing (or equivalent) or 38 mm hot-dipped galvanized roofing nails spaced 203 mm o.c. in both directions with perimeter fasteners at least 10 mm and less than 15.9 mm from ends and edges. Drive nails and screws so bottoms of heads are flush with panel surface to ensure firm panel contact with subfloor. Do not overdrive fasteners. Prefill joints with tile-setting mortar or adhesive and then immediately embed USG Durock™ Brand Tile Backer Tape and level joints.
- C. For wall application, fasten USG Durock™ Glass-Mat Tile Backerboard 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 maximum 203 mm o.c. for walls, 153 mm o.c. for ceilings, with perimeter fasteners at least 10 mm and less than 15.9 mm from ends and edges. Drive nails and screws so bottoms of heads are flush with panel surface. Do not overdrive fasteners. Approved fasteners include: USG Durock™ Tile Backer Screws for steel framing (or equivalent), 32 mm and 41 mm for 14- to 20-gauge steel framing; USG Durock™ Tile Backer Screws for wood framing (or equivalent), 32 mm, 41 mm and 57 mm for wood framing; and nails 38 mm hot-dipped galvanized roofing nails). Prefill joints and then immediately embed USG Durock™ Tile Backer Tape and level joints. Maintain 6.5 mm gap between USG Durock™ Glass-Mat Tile Backerboard and tub surround. USG Durock™ Brand Glass-Mat Tile Backerboard panels may be fastened to framing horizontally or vertically with stud spacing at a maximum of 610 mm on center with blocking at horizontal joints or 400 mm on center without blocking.
- D. Panels should be cut to size with a knife and straight edge. A power saw should be used only if it is equipped with a hepa vacuum dust-collection device. Installer should wear NIOSH/ MSHA-approved dust mask.
- E. If additional waterproofing is required, treat joints and fastener penetrations with ANSI A118.10 waterproofing membrane.
- F. In areas where standing water could occur on horizontal surfaces, such as shower benches or niches, waterproofing is required with ANSI A118.10 waterproofing membrane.

G. For dry untiled areas - for small areas where the USG Durock™ Brand Glass-Mat Tile Backerboard will not be tiled, such as board extending beyond the tiled area and abutting another surfaces, treat joints as follows. Seal board with Type 1 ceramic tile adhesive. (Mix four parts adhesive with one part water.) Embed USG Sheetrock® Brand Joint Tape and treat fasteners with USG Sheetrock® Brand Durabond® Setting-Type Joint Compound (45 or 90) applied in a conventional manner. Flat trowel setting-type compound over board to cover fasteners and fill voids to a smooth surface. Finish joints with at least two coat of USG Sheetrock® Brand Ready-Mixed All-Purpose Joint Compound. Do not apply ready-mixed or setting-type joint compound over unsealed board.

LIMITATIONS

1. Tile must be applied on the gray-coated side of panel. Panels are designed for interior use only and should not be used around fireplaces or areas where prolonged exposure to heat exceeds 52°C or for exterior applications. Use framing or furring when applying over concrete or masonry block. Install vapor retarders suitable for bonding tiles on the face of the panels.
2. For wall applications, maximum stud spacing is 400mm o.c., or 610mm o.c. with back-blocking at horizontal joints. Framing shall be designed (based on stud properties alone) not to exceed L/360 deflection for tile and thin brick. Maximum fastener spacing: 203 mm o.c. for wood and steel framing; 153 mm o.c. for ceiling applications.
3. For floor applications, maximum joist spacing 610 mm o.c. The subfloor system should be designed with a maximum 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 shall 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.
4. Do not use where temperature will be above 49°C.
5. Maximum dead load for ceiling system is 7.5 psf.
6. Steel framing must be 20-gauge equivalent or heavier.
7. Do not use drywall screws or drywall nails. Do not use drywall joint tape.
8. Do not use with vinyl flooring or over a concrete subfloor.
9. USG Durock™ Glass-Mat Tile Backerboard is not designed for use as a structural panel.
10. Panels should not be used in select wet areas including commercial saunas or steam rooms, gang showers, or shower pan bases.
11. Waterproofing membrane must be used over USG Durock™ Glass-Mat Tile Backerboard in select wet areas including indoor hot tub decks, shower benches and niches, tiled wall and ceiling applications in indoor pool areas, and tiled wall and ceiling applications in residential steam rooms, per ANSI A118.10.

TECHNICAL DATA

Property	Unit of Measure	Test Method	15.9mm USG Durock™ Brand Glass-Mat Tile Backerboard (UL Type SGX)	12.7mm USG Durock™ Brand Glass-Mat Tile Backerboard
Weight	psf	ASTM C473	2.5	1.7
Flexural strength	lbf	ASTM C473	>177 (perpendicular) >100 (parallel)	>100(perpendicular) >80 (parallel)
Nail pull	lb (6.5 mm head diameter)	ASTM C473	>90	>70
Shear bond strength	psi	ANSI A118.1/ANSI A118.4/ANSI A136.1	>50	>50
Surface-burning characteristics	Flame spread/ smoke developed	ASTM E84	15/5	15/5
Fire resistance	-	-	Type X	-
Thermal resistance	hr-°F-ft ² /Btu	ASTM C518	0.44	0.42
Mold resistance	-	ASTM D3273 10	10	10
Floor system service rating	Service rating	ASTM C627	See table below	See table below
Minimum bending radius	ft	-	20	12
VOC	Pass/fail	CDPH V1.1	Pass	Pass
Permeability	Perm	ASTM E96 Procedure A	<3	<3

FLOOR SYSTEM SERVICE RATING

	Tile Size		
Joist spacing mm on center	50.8 mm x 50.8 mm	153 mm x 153 mm	203 mm x 203 mm
406 mm o.c.	Residential	Light commercial	-
488 mm o.c.	Residential	Light commercial	-
610 mm o.c.	-	-	Light commercial