GlasRoc®
Tile Backer

Product Overview

GlasRoc® Tile Backer is a superior tile substrate for walls, ceilings, and countertops, specially designed by CertainTeed to meet the demands of high-moisture areas. With an innovative, built-in moisture-blocking acrylic coating that resists moisture at the surface, GlasRoc® Tile Backer protects tile installations and wall cavities from moisture intrusion and eliminates the need for a separate moisture barrier. Because paperless tile backer boards provide increased mold resistance, GlasRoc® Tile Backer is well-suited for tile and non-tile installations in wet and non-wet applications, areas of high humidity and for fire-rated assemblies.

GlasRoc® Tile Backer offers:
- A superior water-resistant surface that inhibits water vapor permeance.
- Specially formulated water-resistant core.
- Excellent fire-resistance properties, and numerous fire-rated designs.
- Mold resistance rating of 10 when tested in accordance with ASTM D 3273.
- Conformity to design and code requirements.
- A lightweight tile backer that cuts like regular gypsum board and is easy to handle and install – with minimal skin irritation due to fully-embedded glass mats.
- Lifetime Limited Warranty for residential applications.
- Meets ASTM C 1178, which is recognized by the Tile Council of North America (TCNA).
- Reduced surface alkalinity versus conventional cement board.

GlasRoc® Products – Superior Technology

CertainTeed’s GlasRoc® family of products features unique Enhanced Glass Reinforced Gypsum (EGRG) technology. This patented* technology combines a protective acrylic coating on the face, with reinforced glass mats fully-embedded into a water-resistant gypsum core, positioned beneath a polymer-modified gypsum surface. The GlasRoc® offering provides:
- Water-resistant, paperless surface that is designed to meet the water vapor permeance requirements of the application.
- Numerous fire-rated assembly designs for safety and performance.
- Moisture and mold resistance for protection and durability.
- Naturally resists mold and mildew growth with no chemicals added.
- Lightweight and designed to cut like regular gypsum board for ease of installation.

*Covered by U.S. Patent No. 6,324,679; 6,878,321; 6,866,492; and other patents pending.
GlasRoc® Tile Backer is IRC and IBC Code compliant in 1/2” (12.7 mm) and 5/8” (15.9 mm) thicknesses and meets ASTM C 1178 as a glass mat water-resistant gypsum backing panel for use as a tile backer, as recognized by the Tile Council of North America (TCNA).

The TCNA recommends the use of a moisture barrier for cement backer boards in wet areas; however, GlasRoc® Tile Backer has a built-in moisture barrier that stops moisture at the surface, thereby eliminating the need for an additional barrier.

Mold Resistance Test – When tested in accordance with ASTM D 3273, GlasRoc® Tile Backer exhibited no evidence of mold or fungal growth after a period of 28 days of exposure, yielding a rating of 10, the highest level of performance for mold resistance.

Under certain job site conditions, mold resistance for building products may produce different results than those achieved in a controlled, laboratory setting; however, when handled properly, using appropriate design methods and construction practices, GlasRoc® Enhanced Glass Reinforced Gypsum (EGRG) Technology provides increased mold resistance compared to standard moisture resistant paper faced wallboard.

GlasRoc® Tile Backer meets ASTM C 1178, which is referenced by the Tile Council of North America (TCNA).
Bathtub and Shower Walls or Ceilings

Walls or Ceilings
When using GlasRoc® Tile Backer as a tile substrate in residential wall applications, panels should be installed with the gray side facing the interior. Tiles should always be applied to the gray side.

GlasRoc® Tile Backer can be scored and cut with a standard utility knife and requires no special tools. Working from the gray side, pieces snap after scoring only one face. After cutting panels to required size, make cutouts and then snug fit ends and edges, being certain not to leave gaps between panels.

When used as a tile substrate for walls, minimum 20-gauge steel or wood framing should not exceed 16" (406.4 mm) o.c. without blocking for 1/2" (12.7 mm); or 24" (609.6 mm) o.c. for 5/8" (15.9 mm). Panels can be applied horizontally or vertically.

When used as a tile substrate for ceilings, panels should be applied perpendicular to framing. Framing should be spaced no greater than 12" (304.8 mm) o.c. for 1/2" (12.7 mm) thickness or 16" (406.4 mm) o.c. for 5/8" (15.9 mm) thickness. For walls and ceilings, fasteners should be spaced 6" (152.4 mm) o.c. on wood and metal framing. Drive fasteners flush with gray-coated surface and do not countersink. Use 1-1/2" (38.1 mm) galvanized roofing nails for 1/2" (12.7 mm) GlasRoc® Tile Backer and 1-3/4" (44.5 mm) for 5/8" (15.9 mm) GlasRoc® Tile Backer. For 1/2" (12.7 mm) GlasRoc® Tile Backer, use 1-1/2" (38.1 mm) (minimum) corrosion-resistant backerboard screws. For 5/8" (15.9 mm) GlasRoc® Tile Backer, use 1-5/8" (41.3 mm) (minimum) corrosion-resistant backerboard screws. Using 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape, bed tape on all joints and corners with material used to set tiles. Apply sealant to seal fixture and plumbing penetrations and abutments to dissimilar materials. If GlasRoc® Tile Backer meets gypsum board outside the shower, and tiles extend beyond the gypsum board joint and GlasRoc® Tile Backer, apply 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape to the joint and skim with latex-modified thinset.

If GlasRoc® Tile Backer meets gypsum board outside the shower, and tiles end before the gypsum board joint and GlasRoc® Tile Backer, apply 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape to the joint and skim with setting type joint compound in order to create a smooth, paintable surface.

Special notes:
Do not use an additional moisture barrier. (GlasRoc® Tile Backer has a built-in moisture barrier.)

- Do not use all-purpose joint compound or paper tape in wet areas. Use 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape.
- Do not use GlasRoc® Tile Backer as a base for nailing and mechanical fastening.
Shower Receptors

Before installing GlasRoc® Tile Backer on walls (see Diagram 2), the shower pan or rubber membrane must be adequately sloped to the main drain or weep-hole so as not to impede proper water drainage.

For showers with curbs, a waterproof membrane must be applied up walls for a minimum of 3” (76.2 mm) and a maximum of 6” (152.4 mm) above the finished curb. GlasRoc® Tile Backer should not be used in the curb.

For showers without curbs, a waterproof membrane should be applied up walls for a minimum of 6” (152.4 mm) and a maximum of 8” (203.2 mm). Satisfactory blocking should be applied at the bottom framing (e.g., wood).

Special notes: Do not place GlasRoc® Tile Backer into the shower mortar bed. Leave a maximum 1/4”(6.4 mm) gap and fill with flexible sealant.

Diagram 2

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Bathtub or Shower Receptor

GlasRoc® Tile Backer may be applied on walls horizontally or vertically.

Thoroughly filling the space between the tile and tub with a flexible sealant will help prevent water penetration.

Diagram 3

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Shower Pan

Additional Notes: GlasRoc® Tile Backer may be applied on walls horizontally or vertically.

Diagram 4
Countertops

When using GlasRoc® Tile Backer on countertops (see Diagram 5), a minimum 23/32" (18.3 mm) exterior glue plywood base must first be installed flat and level, followed by a bedding coat of latex-modified thinset on the plywood using a 1/4" x 1/4" x 1/4" (6.4 mm x 6.4 mm x 6.4 mm) notched trowel. Framing spacing should not exceed 24" (609.6 mm) o.c. Overhangs on cantilever counters must be supported to prevent movement.

Apply clean, dry GlasRoc® Tile Backer to the base with the gray acrylic coated side facing out prior to the leveling material setting up. Fasten panel every 6" (152.4 mm) o.c. in both directions, using 1-1/4" (31.8 mm) galvanized roofing nails or 1-1/4" (31.8 mm) corrosion-resistant backerboard screws. Stagger joints of GlasRoc® Tile Backer panels with those of the plywood base, butting joints tightly. Tape all joints and corners using nom. 2" (50.8 mm) wide self-adhering, alkali-resistant fiberglass mesh tape and embed the tape in latex cement mortar that meets ANSI A118.4.

Install tile (using latex-modified thinset) to expansion/control joints and grout in accordance with ANSI A108.

Use a waterproof membrane (ANSI A118.10) to seal edge and bottom of plywood overhang at face of counter and all other plywood surfaces and edges that will be exposed to water or moisture, especially around automatic dishwashers.

Non-Tile Walls or Ceilings

Non-Tile, Non-Wet, High-Humidity Areas

GlasRoc® Tile Backer may also be used in interior non-tile areas that do not come in contact with water, but that experience exposure to high levels of humidity intermittently, such as areas outside tubs and showers in residential construction (see Diagram 6).

For walls, wood framing or steel (25-gauge min.) should be spaced no greater than 16" (406.4 mm) o.c. for 1/2" (12.7 mm) GlasRoc® Tile Backer and 24" (609.6 mm) o.c. for 5/8" (15.9 mm) GlasRoc® Tile Backer. For ceilings, GlasRoc® Tile Backer should be installed perpendicular to framing with framing spaced no greater than 12" (304.8 mm) o.c. for 1/2" (12.7 mm) thickness and 16" (406.4 mm) o.c. for 5/8" thickness.

Apply 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape over joints and angles, embedding the tape in a setting-type joint compound. Using a trowel, skim entire panel with the compound to create a smooth surface for paint or wallpaper application. Before applying paint or wallpaper, the surface should be primed for high-moisture areas as recommended by the product’s manufacturer for applications over setting type joint compound.

Note: In this type of application, do not use a ready-mix joint compound or a compound that requires sanding.
Fire-Rated Assemblies

GlasRoc® Tile Backer Type X: The Ultimate Choice

- CertainTeed offers over 70 Type X fire-rated designs in the GlasRoc® family.
- 5/8" (15.9 mm) GlasRoc® Tile Backer meets Type X requirements.
- Tile installation is not required to achieve a 1- or 2-hour fire rating.
- Aligns perfectly with 5/8" (15.9 mm) ProRoc® Type X gypsum board and is UL Classified.

1-Hour Fire Rating
Test Reference: UL U305
Partition Thickness: 4-3/4" (120.7 mm)
Weight, lbs. per Sq. Ft.: 6.8 (33.2 Kg/m²)
5/8" (15.9 mm) GlasRoc® Tile Backer Type X applied parallel or at right angles to 2 x 4 wood studs 16" (406.4 mm) o.c. with 1-7/8" (47.6 mm) phosphate coated nails 7" (177.8 mm) o.c. Joints staggered each side and covered with 2" (50.8 mm) wide 10 x 10 alkali-resistant fiberglass mesh tape and tile adhesive. (Load bearing)

2-Hour Fire Rating
Test Reference: UL U301
Partition Thickness: 6" (152 mm)
Weight, lbs. per Sq. Ft.: 12.0 (58.6 Kg/m²)
Base Layer: 5/8" (15.9 mm) ProRoc® Type X gypsum board. Base layer attached horizontally or vertically to minimum 2 x 4 wood studs 16" (406.4 mm) o.c. with 1-7/8" (47.6 mm) nails spaced 6" (152.4 mm) o.c.
Face Layer: 5/8" (15.9 mm) GlasRoc® Tile Backer Type X applied horizontally or vertically. Face layer attached to studs over base layer with 2-3/8" (60.3 mm) nails spaced 8" (203.2 mm) o.c. Vertical joints located over studs. All joints in face layers staggered with joints in base layers. Joints of each base layer offset with joints of base layer on opposite side. (Load bearing)

2-Hour Fire Rating
Test Reference: UL U411
Partition Thickness: 5" (127 mm)
Weight, lbs. per Sq. Ft.: 11 (53.7 Kg/m²)
Base Layer: 5/8" (15.9 mm) ProRoc® Type X gypsum board applied parallel to each side of 2-1/2" (63.5 mm) metal studs 24" (609.6 mm) o.c. with 1" (25.4 mm) Type S screws 16" (406.4 mm) o.c.
Face Layer: 5/8" (15.9 mm) GlasRoc® Tile Backer Type X applied parallel to each side of studs with 1-5/8" (41.3 mm) Type S screws 16" (406.4 mm) o.c. at edge joints, 12" (304.8 mm) o.c. at perimeter and intermediate studs. Stagger joints 24" (609.6 mm) o.c. each layer and side. (Non-load bearing)

See "UL Fire Resistance Directory" for additional fire-rated assemblies.
GlasRoc® Tile Backer Benefits

Better Physical Performance
Tested in accordance with ASTM C 1178, GlasRoc® Tile Backer meets or exceeds all physical property requirements.

Enhanced Dimensional Stability
GlasRoc® Tile Backer resists delamination, rippling, buckling and sagging related to environmental conditions, such as changes in temperature and relative humidity. GlasRoc® Tile Backer will provide a flat and uniform substrate for tile applications. To back it up, CertainTeed provides a lifetime limited warranty for residential applications.

Enhanced Fire Protection
Testing in accordance with ASTM E 136 proved that GlasRoc® Tile Backer Type X with its acrylic coating is noncombustible and offers superior fire performance. It has a zero flamespread and zero smoke developed index when tested per ASTM E 84 for surface burning characteristics. GlasRoc® Tile Backer Type X is UL Classified for Fire resistance for use in fire rated designs. (UL Designation – Type EGRG).

Easy to Handle and Install
GlasRoc® Tile Backer is handled and installed like regular paper-faced gypsum. In addition, it:
- Is significantly lighter than conventional cement board, resulting in lower installation cost.
- Can be scored and cut with a standard utility knife. No power tools required, reducing the amount of particle dust versus conventional cement board.
- Snaps free after scoring only one face
- Attaches to framing with the same fasteners used for paper-faced gypsum
- Is easier to handle because skin irritations are minimized due to fully-embedded glass mats and our innovative acrylic coating on the gray face
- Has uniform field and edge hardness, making trimming and fastening quick and easy, as well as, reducing occurrence of overdriven fasteners.

Mold and Mildew Resistance
Because GlasRoc® Tile Backer contains no starches, sugar, paper facing or pulp, it naturally resists mold and mildew growth. When tested in accordance with ASTM D 3273, GlasRoc® Tile Backer exhibited no evidence of mold and mildew after a period of 28 days of exposure, yielding a rating of 10, the highest rating possible.

Increased Durability
GlasRoc® Tile Backer resists delaminating because the glass mats are fully-embedded into the panel, creating a more durable, dimensionally stable panel.

Standards and Code Compliance
GlasRoc® Tile Backer conforms to ASTM C 1178 standards for glass mat water-resistant gypsum backing panel for use as a tile backer. Installation standards, where applicable, are per the Tile Council of North America Inc.'s TCA Handbook for Ceramic Tile Installation for glass mat water-resistant gypsum backer board.

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CertainTeed Corporation
P.O. Box 860
Valley Forge, PA 19482
Professional: 800-233-8990
Consumer: 800-782-8777
www.certainteed.com

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