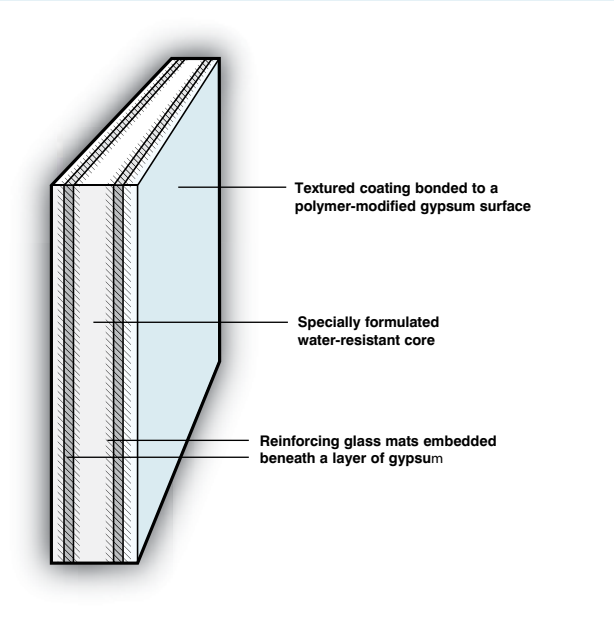# Product Overview

Diamondback® Tile Backer is a superior tile substrate for walls and ceilings, specially designed by CertainTeed to meet the demands of high-moisture areas. Diamondback 1/4" (6.4 mm) Tile Backer is suitable for use as an underlayment for tile countertops and floor applications. With an innovative, built-in moisture-blocking coating that resists moisture at the surface, Diamondback 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, Diamondback 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® Products – Superior Technology

CertainTeed's GlasRoc® products feature unique Embedded Glass Reinforced Gypsum® (EGRG®) technology. This patented* technology combines a protective textured coating on the face, with reinforced glass mats 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 requirements of the application.

• Numerous fire-rated assembly designs for safety and performance.

• Moisture and mold resistance for protection and durability.

• Lightweight and designed to cut like regular gypsum board for ease of installation.

Textured coating bonded to a polymer-modified gypsum surface

Specially formulated water-resistant core

Reinforcing glass mats embedded beneath a layer of gypsum

*Covered by U.S. Patent No. 6,524,679; 6,878,321; 6,866,492; and other patents pending.
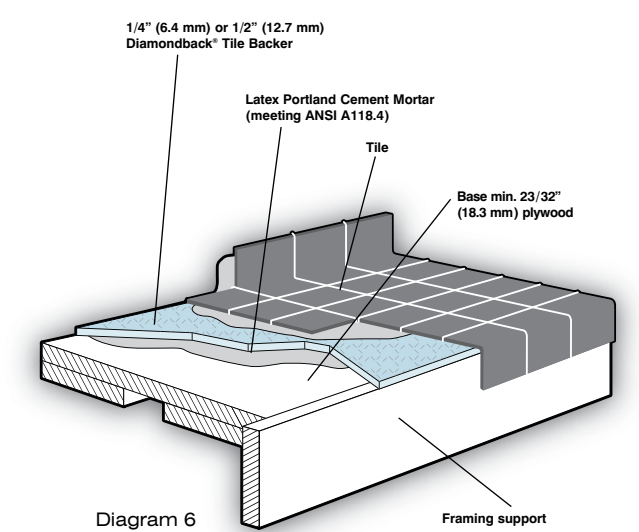
Countertops

When using Diamondback® Tile Backer on countertops (see Diagram 6), 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/polymer-modified thinset on the plywood using a 1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) notched trowel. Framing spacing should not exceed 24" (610 mm) o.c. Overhangs, expansion/control joints on cantilever counters must be supported to prevent movement.

Apply clean, dry Diamondback Tile Backer to the base with the textured side facing out prior to the leveling material setting up. Fasten panel every 6" (150 mm) o.c in both directions, using 1-1/4" (32 mm) galvanized roofing nails or 1-1/4" (32 mm) corrosion-resistant backerboard screws.

Stagger joints of Diamondback Tile Backer panels with those of the plywood base, butting joints tightly. Tape all joints and corners using nominal 2" (50 mm) wide self-adhering, alkali-resistant fiberglass mesh tape, such as FibaTape® Cement Board Tape and embed the tape with latex cement mortar that meets ANSI A118.4.

Install tile using latex/polymer-modified thinset, 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.

1/4" (6.4 mm) or 1/2" (12.7 mm) Diamondback® Tile Backer

Latex Portland Cement Mortar (meeting ANSI A118.4)

Tile

Base min. 23/32" (18.3 mm) plywood

Diagram 6

Framing support

Special notes:

• Do not use an additional moisture barrier. Diamondback Tile Backer has a built-in moisture barrier.

• Do not use all-purpose joint compound or paper tape in wet areas. Use 2" (50 mm) wide alkali-resistant fiberglass mesh tape.

• Do not use Diamondback Tile Backer as a base for nailing and mechanical fastening.

• Do not laminate Diamondback Tile Backer directly to masonry block or concrete. Framing or furring of wall is necessary.

• In all corners, prior to applying the mesh tape, apply a small bead of sealant to the joint without spreading it over the face of Diamondback Tile Backer.

Diamondback® Features & Advantages:

• A superior water-resistant surface.
• 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 D3273.
• 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 embedded glass mats.
• Lifetime Limited Warranty for residential applications.
• Twenty Year Limited Warranty for commercial applications.
• Meets ASTM C1178, which is recognized by the Tile Council of North America (TCNA).
• Reduced surface alkalinity versus conventional cement board.
• 1/4" (6.4 mm) Diamondback Tile Backer has passed the ASTM C627 Robinson Floor Test for residential and light commercial floors. This includes TCNA Recognition for specific Floor Systems.

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CertainTeed
SAINT-GOBAIN

SAINT-GOBAIN

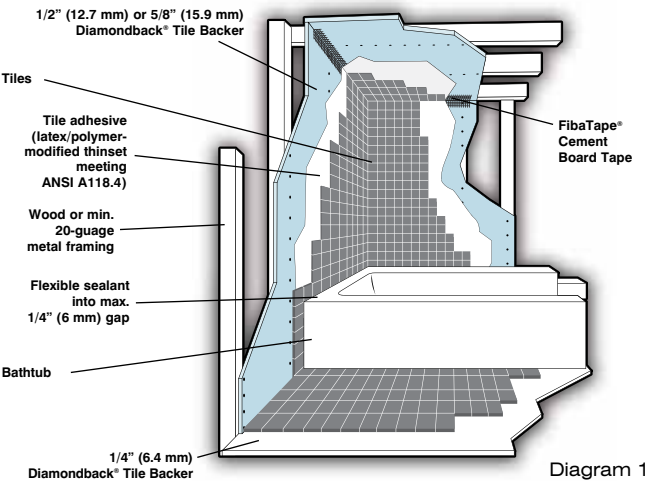# Bathtub and Shower Walls, Floors or Ceilings

Walls, Floors or Ceilings

When using Diamondback® Tile Backer as a tile substrate in residential wall applications, panels should be installed with the textured side facing the interior.

Diamondback Tile Backer can be scored and cut with a standard utility knife. 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 16" (400 mm) o.c. without blocking for 1/2" (12.7 mm); or 24" (610 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" (300 mm) o.c. for 1/2" (12.7 mm) thickness or 16" (400 mm) o.c. for 5/8" (15.9 mm) thickness. For walls and ceilings, fasteners should be spaced 6" (150 mm) o.c. on wood and metal framing. Drive fasteners flush with coated surface and do not countersink. Refer to fastener chart. In all corners, prior to applying the mesh tape, apply a small bead of sealant to the joint without spreading it over the face of Diamondback. Using nominal 2" (50 mm) wide 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.

Diagram 1

Residential and Light Commercial Floors

1/4" (6.4 mm) Diamondback Tile Backer is approved for use as an underlayment for interior residential and light commercial floor tile applications as defined in the TCNA Handbook for Ceramic, Glass, and Stone Tile Installation.

Install Diamondback Tile Backer over the 3/4" (19.1 mm) plywood subfloor with the textured pattern side up using a latex/polymer-modified thinset (ANSI A118.4 or better) liberally applied with a 1/2" x 1/2" (12.7 x 12.7 mm) square-tooth notched trowel. The Diamondback is embedded into the mortar while still pliant. Diamondback Tile Backer board joints are to be staggered

to not align with the subfloor joints and butted tightly. Fasten the Diamondback Tile Backer to the subfloor with 1-1/4" (32 mm) corrosion-resistant screws beginning in the center of each board and working toward the edges. Space fasteners a maximum 8" (200 mm) o.c. in both directions, driving them flush with the surface (Do Not Countersink). Apply a thin coat of latex/polymer-modified thinset (ANSI A118.4 or better) to board joints and embed 2" wide alkali-resistant fiberglass mesh tape with latex/polymer-modified thinset. Apply flooring-grade tile with latex/polymer-modified thinset (ANSI A118.4 or better) using a 1/4" x 1/4" (6.4 x 6.4 mm) square-tooth notched trowel. Use a 2" x 2" (51 x 51 mm) or larger floor-grade tile. Then apply floor grout (ANSI A118.6) or polymer modified grout (ANSI A118.7) to the tile joints.
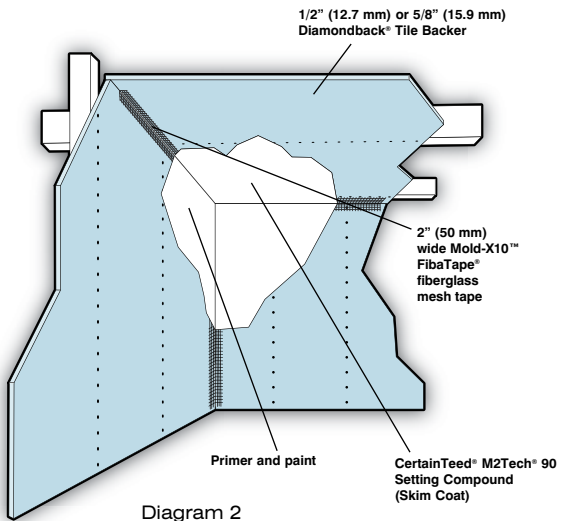
Non-Tile Walls or Ceilings

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

Diamondback® 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 2).

For walls, wood framing or steel (25-gauge min.) should be spaced no greater than 16" (400 mm) o.c. for 1/2" (12.7 mm) Diamondback Tile Backer and 24" (610 mm) o.c. for 5/8" (15.9 mm) Diamondback Tile Backer. For ceilings, Diamondback Tile Backer should be installed perpendicular to framing with framing spaced no greater than 12" (300 mm) o.c. for 1/2" (12.7 mm) thickness and 16" (400 mm) o.c. for 5/8" thickness.

Apply nominal 2" (50 mm) wide fiberglass mesh tape, such as FibaTape® Mold-X10™ Drywall Tape, over joints and angles, embedding the tape in a setting-type joint compound, such as CertainTeed's mold resistant CertainTeed® M2Tech® 90 Setting Compound. Using a trowel, apply a heavy skim coat to the entire panel with the compound to create a smooth surface for paint or wallpaper application. If necessary to create a suitably smooth surface, apply an additional medium skim coat of all purpose joint compound, such as CertainTeed All-Purpose or Lite All-Purpose ready-mixed joint compounds. 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.

Diagram 2

Shower Receptors

Before installing Diamondback® Tile Backer on walls (see Diagram 3), 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.

Install Diamondback Tile Backer on walls in accordance with instructions in Diagram 1.

For showers with curbs, a waterproof membrane must be applied up walls for a minimum of 3" (75 mm) and a maximum of 6" (150 mm) above the finished curb. Diamondback 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" (150 mm) and a maximum of 8" (200 mm). Satisfactory blocking should be applied at the bottom framing (e.g., wood).

Special notes: Do not place Diamondback Tile Backer into the shower mortar bed. Leave a maximum 1/4" (6 mm) gap and fill with flexible sealant.
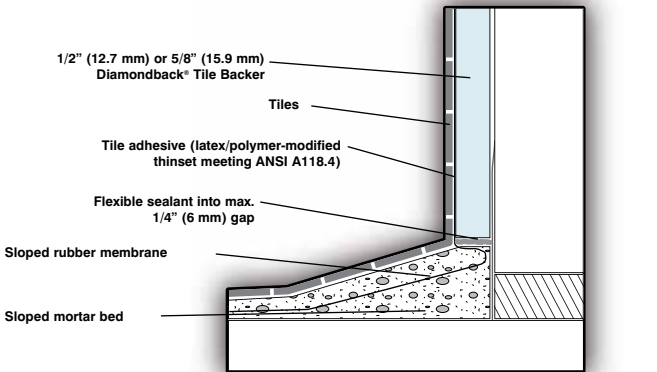

Diagram 3

Bathtub or Shower Receptor

Install Diamondback® Tile Backer on walls in accordance with instructions in Diagram 1.

Diamondback 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.
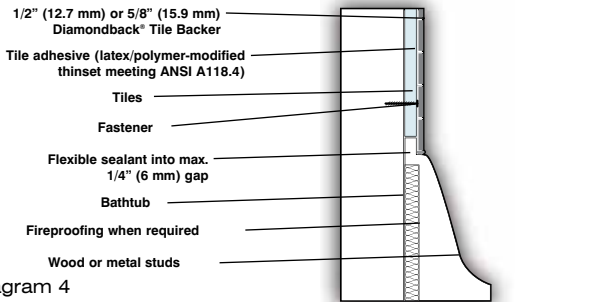

Diagram 4

Shower Pan

Adequately slope shower pan or rubber membrane to the open drain or weep hole, permitting proper drainage. Do not use Diamondback Tile Backer in the shower pan or as a shower base.
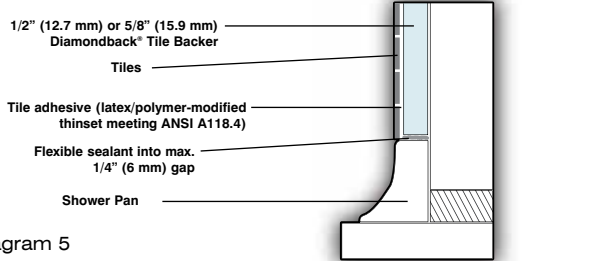

Diagram 5

INSTALLATION GUIDE FOR DIAMONDBACK® TILE BACKER FASTENING PATTERNS

Fastening patterns and other detailed information for recommended installation and application of Coated Glass Mat Water Resistant Gypsum Backer Board (ASTM C1178) can be found below and in the Tile Council of North America, Inc.'s *TCNA Handbook for Ceramic, Glass, and Stone Tile Installation.*

Recommendations for Fasteners – Wood or Metal Framing for Walls & Ceilings
Spacing for all fastener types to be 6" (150 mm) o.c. along framing

Product	Fastener	Fastener Size / Type
Diamondback® Tile Backer 1/4" (6.4 mm)	Screws	1-1/4" (32 mm) corrosion-resistant, backerboard screws with coarse threads
	Nails	Hot dip 7/16" (11 mm) head, galvanized roofing nail, 1-1/4" (32 mm) minimum length.
Diamondback® Tile Backer 1/2" (12.7 mm)	Screws	1-1/2" (38 mm) corrosion-resistant, backerboard screws with coarse threads
	Nails	Hot dip 7/16" (11 mm) head, galvanized roofing nail, 1-1/2" (38 mm) minimum length
Diamondback® Tile Backer 5/8" (15.9 mm) Type X	Screws	1-5/8" (41 mm) corrosion-resistant, backerboard screws with coarse threads
	Nails	Hot dip 7/16" (11 mm) head, galvanized roofing nail, 1-3/4" (44 mm) minimum length

Recommended Materials

- 1/2" or 5/8" Diamondback Tile Backer Type X for walls and ceilings
- 1/4" or 1/2" Diamondback Tile Backer for floors or countertops
- Nominal 2" (50 mm) wide alkali-resistant mesh tape
- Flexible sealant
- No additional moisture barrier needed
- Tile adhesive (latex/polymer-modified thinset meeting ANSI A118.4)
- Metal studs – minimum 20 gauge
- Minimum recommended stud depth: wood – 3-1/2" (89 mm); steel – 3-5/8" (92 mm)