

# TRITON® BACKER BOARD & TILE UNDERLAYMENT



- **Higher-Performance:** High-strength cement technology with no peeling, swelling or delaminating
- **Contractor Friendly:** Ultra-lightweight and easy to score and snap, fasten, and install
- **People & Planet Safe:** Free of crystalline silica, VOCs, and harsh chemicals

## DESCRIPTION

Manufactured using our patented magnesium cement technology, the TRITON® Backer Board is the industry’s most advanced cement tile backer and underlayment. TRITON Backer Board provides an excellent substrate for all types of tile and stone and is an integral part of the MiTek Watertight System as the core material for the TRITON Waterproof Backer, a waterproof board and vapor barrier.

## PRODUCT DATA

### PACKAGING

Available in the following sizes:  
Contact your MiTek representative for additional sizes.

BACKER BOARD SIZE (THICKNESS X WIDTH X LENGTH)	UNIT (PCS)
1/2" x 3' x 5'	70
1/4" x 3' x 5'	120
1/8" x 3' x 5'	150

## STANDARDS

TRITON Backer Board is an Intertek certified Class 1 (ICC) and Class A (NFPA) product that is tested in accordance with ANSI 118.9 , ASTM C 1325, Robinson Floor Test and ICC-ES PMG-1436.

## STORAGE

Deliver and store products in manufacturer’s original, unopened packaging until ready for installation. Store materials in a manner and location to protect from weather, direct sunlight, surface contamination, and construction traffic. TRITON Backer Board panels must be stored flat. While handling materials avoid damage to edges and surfaces.

## ENVIRONMENTAL CONDITIONS

Do not expose TRITON Backer Board panels to sustained temperatures of 125°F (51°C) or higher.

800-328-5934

## APPLICATIONS

During installation of TRITON® Backer Board and tile, maintain temperatures within the structure between 40°F (4°C) to 100°F (38°C). Provide adequate ventilation to manage moisture.

Moisture content of wood framing shall approximate the expected service conditions by allowing the space to be conditioned as long as possible prior to installation of the TRITON Backer Board panels.

For exterior applications, air temperature and temperature of all materials to be installed or applied must be at least 40°F (4°C) and remain at 40°F (4°C) or warmer for at least 24 hours after installation or application. Do not apply any surface treatment to frozen or wet TRITON Backer Board. Protect all surface treatments from rain of significant moisture for at least 24 hours following application. During hot and dry weather, a light moistening of TRITON Backer Board and/or surface treatments may be necessary to prevent rapid curing of surface treatments and to maintain their workability.

## LIMITATIONS

1. TRITON Backer Board is not a waterproof barrier.
2. For applications where waterproofing is required, use the MiTek Watertight System.
3. Do not use in areas subject to prolonged exposure to water. Do not expose panels to sustained temperatures in excess of 125°F (51°C).
4. ANSI 108.11 compliant fasteners are recommended for both wood and steel framing. Use of drywall screws and/or nails is not recommended.
5. Do not use drywall tape or drywall joint compound.
6. Do not install with any “four corner” joints.
7. Stagger all board joint. Do not align with subfloor joints.
8. Must be installed in compliance with appropriate ANSI and industry standards and TCNA recommendations. See Installation Instructions for details.
9. Keep sheet edges 1/8” back from walls and cabinet bases.
10. Do not install floor covering seams directly over board seams.
11. In tub and shower enclosures, ensure that the framing is adequately reinforced at all corners.
12. Set fasteners heads flush with the surface, without overdriving.
13. CAUTION: This product shall not be used in the following applications:
  - 13.a. As a backer board in balcony railings and balcony parapet walls.
  - 13.b. For controlling vertical movement cracks.

## LIMITATIONS (CONT.)

14. Wall applications: Maximum stud spacing: 16" o.c. (24" o.c. for cavity shaft wall assembly). Framing shall be designed (based on stud properties alone) not to exceed L/360 deflection for tile and thin brick, L/240 for direct-applied exterior finish systems. Maximum fastener spacing: 8" o.c. for wood and steel framing; 6" o.c. for ceiling applications.
15. Do not use 1/4" for wall or ceiling applications.
16. Steel framing must be 20-gauge equivalent or heavier.
17. TRITON Backer Board must be finished - tiled and painted - not used as a finish surface.
18. TRITON Backer Board should not be left uncovered for a period of time exceeding 30 days.

## INSTALLATION - FLOORS (1/4")

### 1. Ensure Subfloor is Structurally Sound

- Replace any loose, warped, uneven, or damaged sections
- Ensure subfloor is clean and flat
- Structural subfloor must be engineered not to exceed the L/360 deflection criteria or L/720 for natural stone
- Floor must comply with local building code and ANSI A108.11

### 2. Determine Layout

- Do not align TRITON Backer Board with subfloor joints
- Do not allow four corner joints
- Cut TRITON Backer Board to size, make needed cutouts and holes

### 3. Attach Backer to Subfloor

- Apply supporting bed of mortar that meets or exceeds ANSI A118.1 to subfloor using a 1/4" square notch trowel. For proper guidance regarding specific substrates, refer to mortar manufacturer's guidelines
- Embed TRITON Backer Board into wet mortar, maintaining 1/8" gap between sheets (to be filled with mortar), and 1/4" gap between backer and walls/cabinet bases/tubs/shower pans
- Fasten TRITON Backer Board with proper nails or screws every 8" in the field keeping 3/8" from the edge and 2" from the corners

### 4. Tape Joints Prior to Tiling

- Clean seams with damp sponge
- Fill joints with mortar
- Embed 2" wide, high strength, alkali-resistant glass fiber tape into the mortar

### 5. To Finish TRITON Backer Board With Wall or Floor Tile

- Wet area applications require use of the MiTek Watertight System
- Refer to mortar and tile manufacturers' application guidelines
- Wipe the surface of the backer with a **damp sponge** just prior to applying mortar to clean as well as dampen the backer
- **TIP:** TRITON Backer Board can be installed with either the smooth or textured side facing out.

## INSTALLATION - WALLS (1/2")

### 1. Ensure Framing is Structurally Sound and Properly Aligned

- Wall must comply with local building code and ANSI A108.11
- Use minimum 2"x4" wood studs or 20 gauge metal studs at maximum 16" o.c.

### 2. Determine Layout

- TRITON® Backer Board edges parallel to framing must be structurally supported
- Cut backer to size and make necessary cutouts
- Do not allow four corner joints

### 3. Attach Backer to Framing Members

- Use proper nails or screws at maximum 8" o.c.
- Keep fasteners 3/8" from TRITON Backer Board edges and 2" from corners
- Attach backer to structural members, maintaining 1/8" gap between sheets (to be filled with mortar), and 1/4" gap between backer and floor/tub/shower pan (to be caulked appropriately).
- Set fasteners flush with TRITON Backer Board

### 4. Tape Joints Prior to Tiling

- Clean seams with damp sponge
- For in-plane seams, fill seams with mortar and embed 2" wide, high strength, alkali resistant fiberglass mesh tape.
- For change of plane (corner) joints, space TRITON Backer as required, tape joints using a skim coat of mortar, but do not fill.
- MiTek Waterproof Seam Tape may also be used over seams

### 5. To Finish TRITON Backer Board With Wall or Floor Tile

- Wet area applications require use of the MiTek Watertight System
- Refer to mortar and tile manufacturers' application guidelines
- Wipe the surface of the backer with a **damp sponge** just prior to applying mortar to clean as well as dampen the backer
- **TIP:** TRITON Backer Board can be installed with either the smooth or textured side facing out.

## TECHNICAL DATA

TRITON BACKER BOARD				
PROPERTY	TEST METHOD	1/2" (12mm)	1/4" (6mm)	1/8" (3mm)
Thickness	ASTM C 1185	.45 in.	.25 in.	.13 in.
Density (Specific Gravity)	ASTM C 1185	0.75	0.85	0.95
Weight	ASTM C 1185	1.8 lbs/ft <sup>2</sup>	1.0 lbs/ft <sup>2</sup>	0.70 lbs/ft <sup>2</sup>
Flexural Strength	ASTM C 1185	>1000 psi	>2000 psi	>2600 psi
Mold Resistance	ASTM G 21	0	0	0
Surface Burning Characteristics	ASTM E 84	0/0	0/0	0/0

**WARRANTY AND MATERIALS**

Products and systems provided by MiTek are warranted to be free from defects in material and workmanship. Visit [mii.com/watertight](http://mii.com/watertight) for complete warranty details.

**SUBMITTAL APPROVAL**

JOB NAME:	
CONTRACTOR:	DATE:

**LEGAL**

**PRODUCT INFORMATION**

See [mii.com/watertight](http://mii.com/watertight) for the most up-to-date product information.

**WARNING**

Avoid breathing dust. PROLONGED EXPOSURE TO DUST MAY CAUSE LONG TERM LUNG DAMAGE. This product contains very low levels of materials suspected to cause cancer. These materials are at such low levels in this product that there is no expected danger, however minimizing exposure to dust will eliminate any potential and is a good practice when cutting any construction material. Wear protective gloves/protective clothing/eye protection. If swallowed, inhaled, or skin irritation occurs get medical attention. Dispose of in accordance with local, state, and federal regulations. For more information call 1-800-328-5934 or visit [mii.com/watertight](http://mii.com/watertight).

**ROUTE (S) OF ENTRY:** Skin (None), Eyes (Dust and Chip Form), Inhalation (Dust and Chip Form), Digestion (Dust and Chip Form)

**HEALTH HAZARDS** (Acute and Chronic):

- Eyes (Dust and Chip Form—Irritation Hazard)
- Inhalation (Dust and Chip Form—Irritation Hazard)
- Skin (Fiberglass may cause itching irritation)
- Ingestion (No known Hazard)

**CARCINOGENICITY:** No Known Toxicity Effects (Skin, Eyes, Inhalation, Ingestion) Signs and Symptoms of Exposure: Skin (None), Eyes (Irritation), Inhalation (Coughing), Ingestion (None)

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:** Asthma (Inhalation Exposure of Dust Form and Combustion Products) (Avoid Inhalation)

**TRADEMARKS**

The trademark TRITON®, the design elements and colors, and related marks are trademarks of MiTek Inc.

## LEGAL (CONT.)

### NOTE

Products described here may not be available in all geographic markets. Consult your MiTek 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. See full warranty at [mii.com/watertight](http://mii.com/watertight).

### SAFETY FIRST!

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

## INDUSTRY ORGANIZATIONS



## COMPANY INFORMATION

# MiTek<sup>®</sup>

1-800-328-5934 | [barriersystems@mii.com](mailto:barriersystems@mii.com) | [mii.com/watertight](http://mii.com/watertight)  
560 East Richey Road  
Houston, Texas 77073