



TechBoard™ Best Practices

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Getting Started

Before You Start

The following pages are a guideline for best practices to maximize the effectiveness of ZS2 Techboard applications. Because this product has many uses, no installation will be the same.

Important Safety Note:

Practicing SAFE work procedures are vital to preventing injury. SAFE work procedures should always be accompanied by proper training. If you have questions about the safe work procedures or practices used in your workplace, don't be afraid to speak up and ask questions. Remember, workplace injuries are preventable.

Training and Safety Procedures are the responsibility of the builder/installer of the TechBoard.

Basic Composition

88% magnesium cement, water, and composites; <10% perlite, <5% cellulose, <10% fiberglass mesh

ZS2's TechBoard **does not contain asbestos**, gypsum, crystalline silica or added formaldehyde

Best Uses

Perfected in the lab, tried and tested in the Canadian climate, ZS2 TechBoard is one of the most advanced sheathing products on the market today.

ZS2 TechBoard is an alternative cement board offering architects, builders, and contractors a unique magnesium cement-based board that can be used as interior and exterior sheathing for walls, floors, ceilings, and even countertops.

TechBoard's formulation is highly fire resistant, mold resistant, bacteria/pest resistant, high strength, light weight with a significantly reduced carbon footprint vs. other traditional "Portland" cement products. ZS2's TechBoard resists damage from moisture while providing the ideal combination of strength, uniform composition, and performance.

Storage and Handling

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.

Follow the guidelines below to ensure easy installation:

- ✓ Avoid water exposure during shipping, handling, storage, installation, and after installation of TechBoard.
- ✓ If exposed to water, **allow TechBoards to dry** and climatize to site conditions.
- ✓ Store boards off the ground and undercover. Store boards flat. Use sufficient supports extending under the entire length of boards to prevent sagging.
- ✓ Adequate ventilation shall be provided to carry off excess moisture.
- ✓ Do not apply TechBoard with visible signs of moisture. Do not apply TechBoard over other building materials where conditions exist that are favorable for mold growth as TechBoards can absorb moisture from the material.

Installation Guidelines

Exterior Installation: Walls & Roof

- Recommended stud spacing is 406 mm (16") o.c.; Maximum stud spacing is 610 mm (24") O.C.
- Allow 1/8"(3mm) – 1/4" (6mm) gap between boards to allow movement. 1/4" (6mm) – 3/8" (9.5mm) gap is recommended for caulking the joint applications
- Cement board screws, stainless steel staples, stainless-steel wood screws, or coated wood screws with a minimum salt spray coating of 800 should be used with a maximum spacing of 6"(152.5mm) O.C.
- Fasteners should be no closer than 11mm or 7/16" to the edge of the board
- Staples and screws should be installed flush with the board surface to ensure firm contact with the substrate. Do not overdrive fasteners or drive fasteners the cause breakage of edge

Interior Installation

- Maximum stud spacing is 610 mm (24") o.c.
- Allow wood framing and TechBoard to acclimate to the approximate humidity and temperature it will reach in its service life prior to the application of the TechBoard. Do not install when the TechBoard or framing is wet
- Conditioned spaces should maintain a constant average temperature and not be allowed to fluctuate more than 10°C
- Board should be installed ½" (12.5mm) off the floor
- Allow 1/8" (3mm) – 1/4" (6mm) gap between boards to allow movement. 1/4" (6mm) – 3/8" (9.5mm) gap is recommended for caulking the joint applications
- Cement board screws, stainless steel staples, stainless-steel wood screws, or coated wood screws with a minimum salt spray coating of 800 should be used with a maximum spacing of 8" (203mm) o.c. on walls and 6" (152.5mm) o.c. on ceilings
- Fasteners should be no closer than 11mm or 7/16" to the edge of the board
- Staples and screws should be installed flush with the board surface to ensure firm contact with the substrate. Do not overdrive fasteners.
- For subfloor applications over a 16" (406.5mm) o.c. wood-based substrate, install ¾" (19mm) T&G TechBoard to the substrate using elastomeric adhesive. Fasten with 1 1/2" (38mm) stainless steel wood screws, or coated wood screws with a minimum salt spray coating of 1000

TechBoard TG™ Tongue & Groove Subfloor Installation

General

- Boards feature tongue and groove profile at all edges, and are self supporting and do not require additional blocking.
- Do not install boards with damaged tongue and groove.
- Blocking should be installed with the top surface flush with the top of floor framing members to provide uniform support for all subfloor board edges where required.
- For non-load bearing walls that run parallel to framing, use screws and install blocking at 16" O.C. below the TechBoard TG and fasten into blocking.
- Any non-load bearing wall that is parallel to framing should be supported by continuous structural framing or blocking.
- Bottom plate on non-load bearing wall should attach through the TechBoard TG and into the framing or blocking below.(Blocking requirements by others)
- Framing surface must be clean and free from oil, dirt and contamination.
- Allow TechBoard TG to acclimate to the approximate humidity and temperature it will reach in its service life prior to application. Do not install when the TechBoard TG is wet.
- Conditioned spaces should maintain a constant average temperature and not be allowed to fluctuate more than 10°C
- TechBoard TG should not be installed less than 8" from exposed earth.

Installation

TechBoard TG is to be installed the same way traditional subfloor is installed. The TechBoard is to be placed over supporting joists as per construction drawings. The following are quick tips for an efficient TechBoard TG install:

1. TechBoard TG is installed similar to traditional subfloor - on top of floor joists.
2. TechBoard TG to be installed smooth side up. The rough side should face down and be in contact with the framing member. **NOTE: Framing width should not be less than 1 1/2" wide.**
3. For subfloor applications over a 16" (406.5mm) o.c. wood-based substrate, install 3/4" (19mm) TechBoard TG to the substrate using elastomeric adhesive. Fasten with 1 1/2" (38mm) stainless steel wood screws, or coated wood screws with a minimum salt spray coating of 1000
4. Boards should be butted tight to one another.
5. Gypsum screws are not recommended for TechBoard TG application.
6. Fasteners must be spaced 1/2" from all edges and no closer than 2" from a corner.
7. Countersink screws just below the surface of the Techboard TG. DO NOT overdrive screws. Start at one corner and work your way to the remaining edges.

Manufacturer's Recommendations

ZS2 products can be used for multiple purposes but it is the responsibility of the Architect, Engineer of Record, Specialty Engineers, Contractor and Authorities Having Jurisdiction to ensure that building codes are met.

The following is a list of ZS2 recommendations:

- ✓ TechBoard should not be left uncovered outside for a period of time exceeding 90 days. Discoloration, staining, or efflorescence may occur due to exposure to the elements and may affect the performance or finishing of the board
- ✓ Brittle coatings, such as epoxy coatings, are not recommended for use with Techboard
- ✓ It is not recommended to mud and tape TechBoard. Significant cracking may occur in the drywall mud
- ✓ Steel framing must be 20-gauge equivalent or heavier
- ✓ Maximum installed weight of the finish system should not exceed 15 psf
- ✓ In locations close to saltwater or other challenging environments, design professionals should consider the use of high-grade stainless-steel fasteners
- ✓ TechBoard is not a weather barrier. Proper weather barriers and cladding systems need to be installed over TechBoard and should comply with architectural practices and local building code standards

TechBoard™ Repair

Patching and Repairing

Small divots and imperfections can be patched with an elastomeric patching compound that is intended to be used over concrete/masonry substrates. Follow manufacturer's patching compound recommendations for gap filling limitations and applications.

Replacing

For damage that is too large to repair, including holes through the TechBoard, contact your ZS2 Project Manager for a replacement. Replacement boards must be no less than 24" wide. Add blocking at the TechBoard seams to support edges.



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Through prefabricated construction technologies, combined with advances in material science, it's time to improve safety, close the productivity gap, increase building performance, and build for the future.