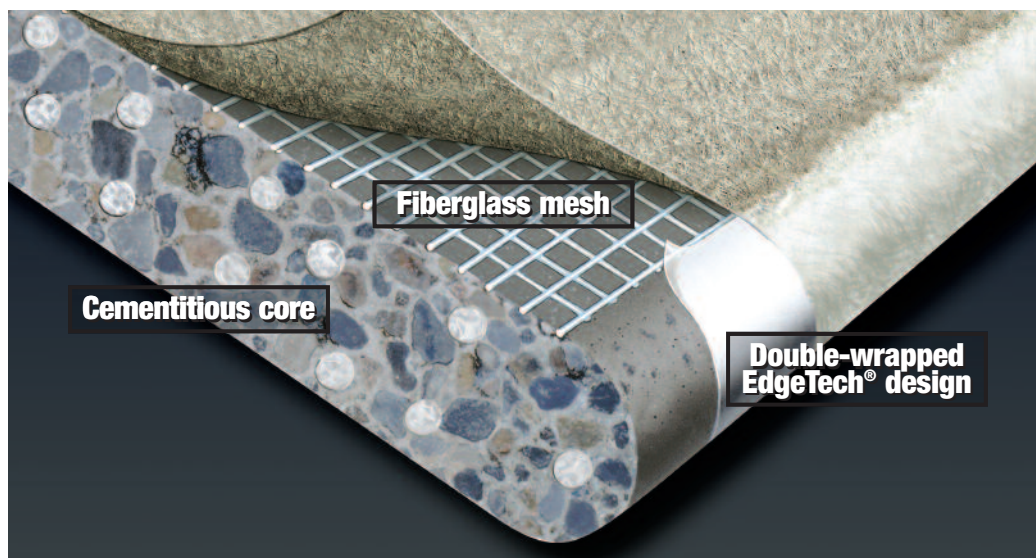


# Perma BASE<sup>®</sup> BRAND Cement Board

## Installation Guide

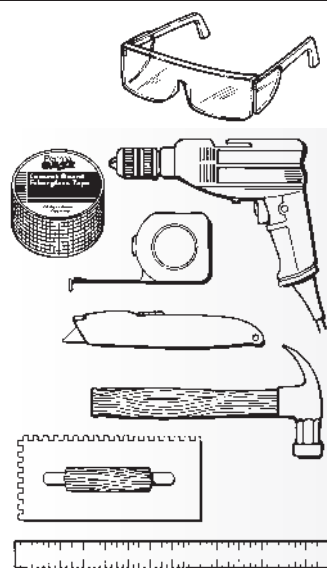
### Description

Ceramic tile is only as good as the base it sits on. And the best base money can buy is PermaBase from National Gypsum. Made of Portland Cement and glass mesh, it's lightweight, hard, durable and won't rot, disintegrate or swell when exposed to water. It has an exclusive double wrapped edge, too, allowing you to nail or screw it closer to the edge without crumbling. And because its composition is uniform throughout, it's easy to score and snap. No additional labor is needed to clean the edge after a cut.



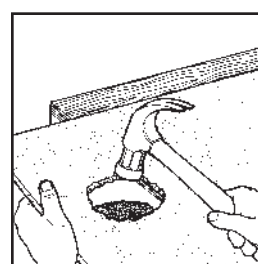
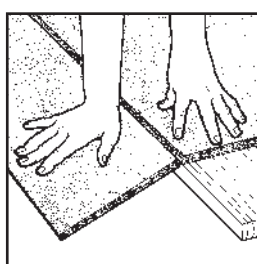
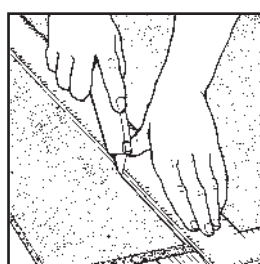
### Tools You'll Need

- Straight edge
- Tape measure
- Utility knife
- Hammer
- Drill
- 1/4" Square notched trowel
- Safety glasses
- 2" PermaBase Fiberglass Mesh tape (alkali-resistant)
- 1-1/4" PermaBase Cement Board Screws (corrosion resistant) or 1-1/2" galvanized roofing nails
- Thinset/mortar (for countertops and flooring applications)

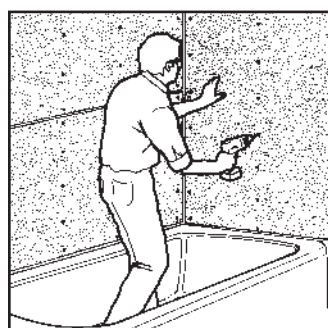


### Important Things to Know

- Cut and tile the printed side of the board.
- It's vapor permeable and unaffected by water. But it's not a water barrier. If the area behind the cement board must be kept dry, a separate moisture barrier or waterproof membrane should be used.
- Not recommended for use with vinyl flooring.
- PermaBase Cement Board carries a 30-year limited warranty for interior applications.



### Tub/Shower Walls and Ceilings



Space wall studs 16" o.c. (on center). Ceiling joists should be 16" o.c. The edges of PermaBase should be continuously supported. It may be necessary to add blocking between the studs. Do not apply PermaBase to protrusions, such as heavy brackets, that jut out beyond the stud plane. Install PermaBase with the printed side facing you.

In typical situations, use two 3' x 5' boards horizontally for the tub back-wall, and one 3' x 5' board vertically at each endwall and ceiling.

Cut cement board to size, attach to wall studs or ceiling joists using recommended nails or screws. On walls, space fasteners 8" o.c. apart. On ceilings, space fasteners 6" o.c. apart. Apply PermaBase with ends and edges closely butted but not forced together. Stagger joints in successive courses.

Use trowel to spread latex-Portland cement mortar or dry-set (thin-set mortar) across the area where the joints meet. The mortar will also prefill the areas between the joints. Again using your trowel, embed 2" PermaBase Fiberglass Mesh Tape (alkali-resistant fiberglass mesh tape) into the mortar with the smooth side of the trowel, remove excess material.

### Floor Underlayment



Cut PermaBase to size, making sure the joints are staggered so they don't line up with the subfloor joints. Leave a 1/4" gap between PermaBase and room perimeter or any columns/abutments.

Use a 1/4" square-notched trowel and apply a latex-Portland cement setting bed to the subfloor. Immediately laminate PermaBase to the subfloor,

printed side up. Fasten cement board every 8" o.c., in both directions, leaving a 1/8" space between all joints and corners. Stagger joints in successive rows.

Use notched trowel and spread latex-Portland cement mortar or dry-set (thin-set mortar) across the area where the joints meet. The mortar will also prefill the areas between the joints. Using trowel, embed 2" PermaBase

Fiberglass Mesh Tape (alkali-resistant fiberglass mesh tape) into the mortar and smooth out.

Follow the same mortar and mesh procedure on the outside edges and corners of the cement board. Finally, use mortar to fill in any depressions the fasteners may have made.

### Countertops



Make certain you have framing to provide adequate support for the 5/8" exterior grade plywood base and PermaBase. Framing should be spaced no greater than 16" o.c.

Using a 1/4" square notched trowel, apply the latex-Portland cement mortar to the plywood, and immediately cover the area with PermaBase board making sure you have the printed and rough

side up. Stagger joints so they do not line up with plywood joints. Be sure to leave a 1/8" gap between panels. Fasten PermaBase every 8" o.c. in both directions and around all edges while the mortar is still workable.

Use trowel to pre-fill joints as well as outside corners of countertops with latex-Portland cement mortar (or thin-set) and immediately embed 2" PermaBase Fiberglass Mesh Tape (alkali-resistant fiberglass mesh tape). Ensure that the

tape is centered over the joint and with the smooth side of the trowel, remove any excess mortar. Apply mortar to all fasteners and allow material to dry.

### Corporate Headquarters

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