

PermaBase[®] BRAND **Cement Board**

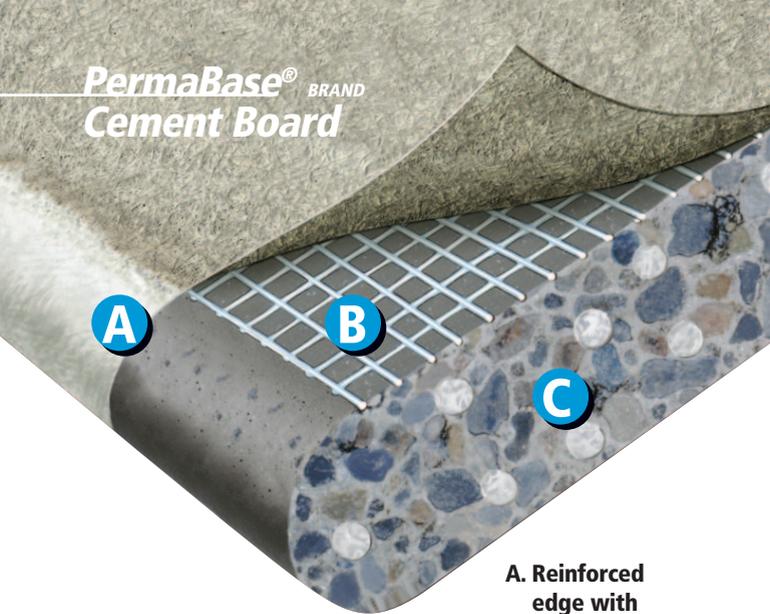


Perma
BASE[®]
BRAND
Cement Board

*Behind Every
Great Finish
is a Strong Base!*

National 
Gypsum[®]

PermaBase[®] BRAND Cement Board



Ceramic tile's best friend.

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. PermaBase offers a competitive advantage over similar products on the market with its patented EdgeTech[®] technology. The tapered, reinforced edge design allows for closer nail or screw application to the edge.

PermaBase can be cut utilizing a standard utility knife and straightedge. With its unique core composition, little or no additional labor is needed to clean the edge after a cut.

Compared to other backerboards that contain gypsum or cellulose, PermaBase is the most durable and versatile on the market. It also carries a Lifetime Limited Warranty for interior applications and a 15-year Limited Warranty for exterior applications.

So what are you waiting for? Let's buy the size PermaBase we need, make sure we have the right tools and fasteners, and get started installing it on walls, ceilings, countertops or floors.

STANDARD SIZES

Thickness

1/4" (7.9 mm)*, 1/2" (12.7 mm), 5/8" (15.9 mm)

Widths

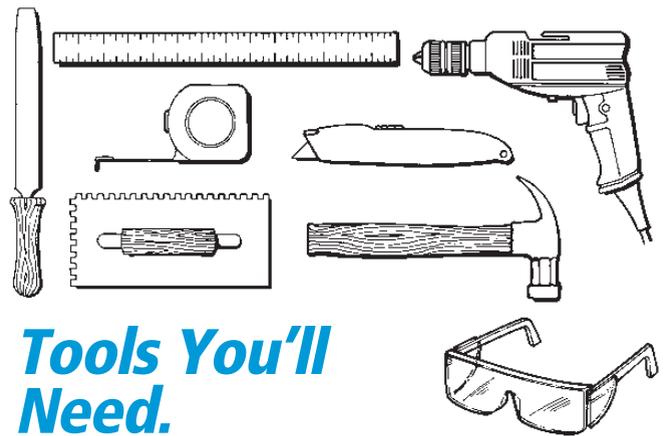
36" (914 mm), 48" (1219 mm)

Lengths

48" (1219 mm), 60" (1524 mm), 96" (2438 mm)

*Counters and floors only.

- A. Reinforced edge with EdgeTech[®] technology**
- B. Fiberglass mesh**
- C. Cementitious core**



Tools You'll Need.

You don't need special tools for PermaBase (also known as backerboard) installation. In fact, it's likely that you have most or all of them in your garage or workshop. A straightedge, tape measure, utility knife, hammer, drill, rasp, 1/4" square-notched trowel, pencil and safety glasses will do the job.

We do not recommend the use of power tools to cut the backerboard. The dust those tools create can be harmful to your lungs.

Fastening and Joint Finishing Materials

Types of Fasteners

You can use 1-1/4" corrosion resistant cement board screws or 1-1/2" hotdipped, galvanized roofing nails to affix the backerboard over framing. You'll do this prior to reinforcing the joints.

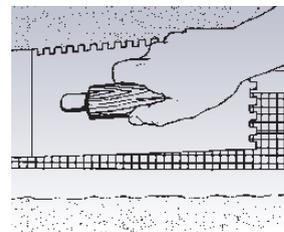
DO NOT USE DRYWALL SCREWS.

Joint Reinforcement

To reinforce the joints, use the flat edge of your notched trowel to spread Latex-Portland Cement Mortar or dry-set (thin-set mortar) across and into the area where the joints meet. You'll also need 2" alkali-resistant mesh tape to embed into the mortar

DO NOT USE DRYWALL MESH TAPE.

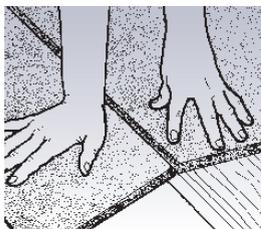
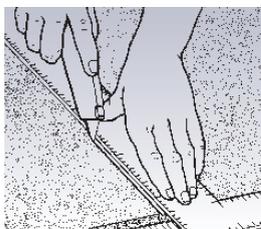
National Gypsum recommends the use of PermaBase tape and PermaBase screws to complete your installation.



Cutting PermaBase

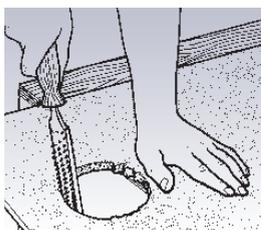
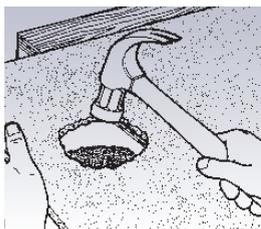
Basic Cutting

With the printed side up, use your straight-edge and a pencil to mark your line. Then use the utility knife to score/cut the glass mesh. Next, snap the board and cut through the now visible glass mesh on the other side. It's that simple.



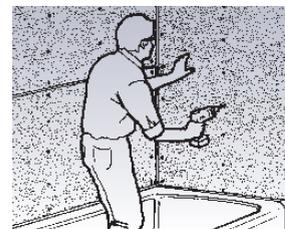
Cutting Holes

You can create cutouts for fixtures by marking the glass mesh on the rough side of the back-board, then scoring it with a utility knife, and punching the hole out with a hammer. When that's completed, cut the glass mesh on the other side to free the piece you knocked out, and smooth the edges with a rasp.



Tub/Shower Surrounds

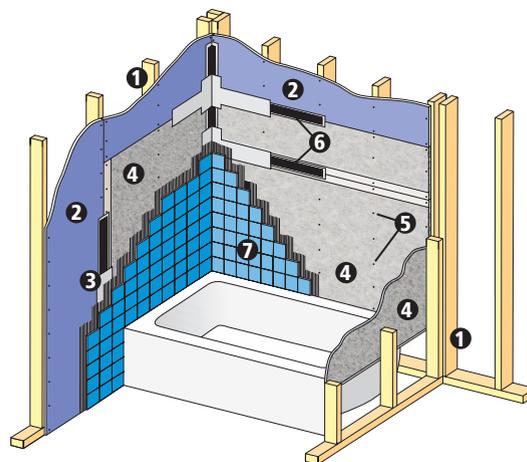
If you are beginning your project by installing wall studs, space them 16" o.c. (on center). Ceiling joists should be 16" o.c. It's also important to note that the edges of PermaBase should be continuously supported. So it may be necessary to add blocking between the studs. Also, don't apply PermaBase to protrusions, such as heavy brackets, that jut out beyond the stud plane. Install PermaBase with printed side visible.



In typical situations, you can use two 3' x 5' boards horizontally for the tub backwall, and one 3' x 5' board vertically at each endwall.

Cut PermaBase Cement Board to size (following the cutting procedure covered previously in this brochure), attach it to wall studs or ceiling joists with the recommended nails or screws. On walls, space fasteners 8" o.c. apart. On ceilings, space fasteners 6" o.c. apart. Make sure you leave an 1/8" gap between the joints.

Next, use the flat side of your notched 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. Then, again using your trowel, embed 2" alkali-resistant mesh tape into the mortar and smooth out.



- ❶ 2" x 4" Wood Studs 16" o.c.
- ❷ XP® Gypsum Board
- ❸ Adhesive or Latex-Portland Cement Mortar
- ❹ PermaBase Cement Board
- ❺ PermaBase Cement Board Screws, 8" o.c.
- ❻ Fiberglass Mesh Tape (Alkali Resistant)
- ❼ Tile

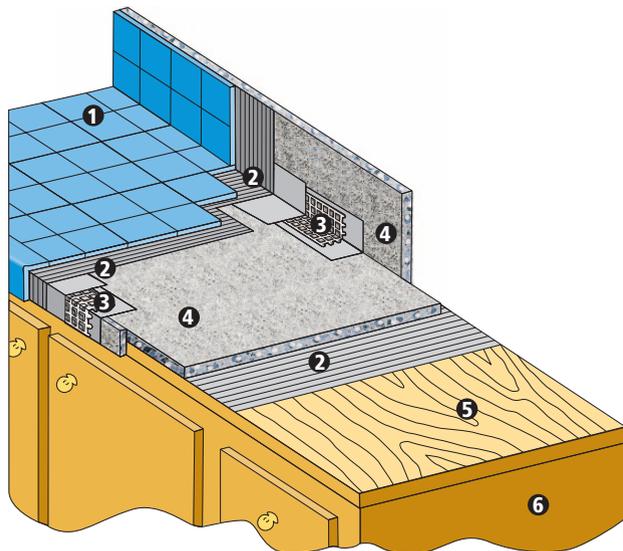
Countertops

First, make certain you have framing to provide adequate support for the 3/4" exterior grade plywood base and PermaBase. Framing spacing should be no greater than 16" o.c. Then, using a 1/4" square notched trowel, apply the latex-portland cement mortar to the plywood, and immediately cover the area with PermaBase, making sure you have the printed 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.

Next, use your trowel to pre-fill joints as well as outside corners of countertops with latex-portland cement mortar (or thin-set) and immediately embed 2" alkali-resistant mesh tape. Ensure that the tape is centered over the joint and smooth out with trowel, removing any excess mortar. Apply mortar to all fasteners and allow material to dry.



Note: 1/4" PermaBase can be applied over some existing countertop surfaces.



- ❶ Tile
- ❷ Latex-Portland Cement Mortar
- ❸ Fiberglass Mesh Tape (Alkali Resistant)
- ❹ PermaBase Cement Board
- ❺ Plywood
- ❻ Cabinet

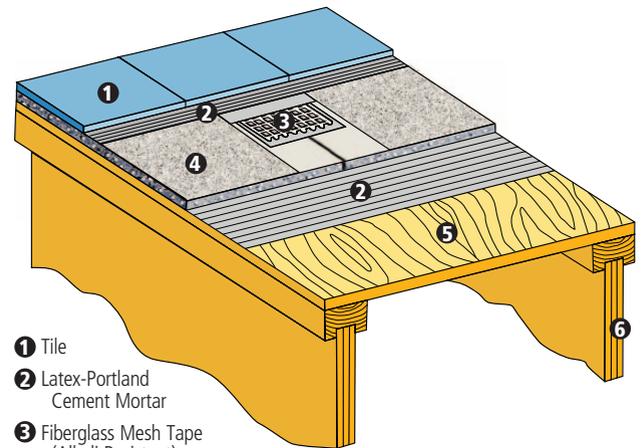
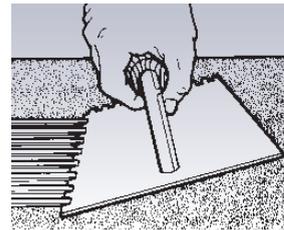
Floor Underlayment

Cut your PermaBase Cement Board to size, making sure the joints are staggered so they don't line up with the subfloor joints. Before putting the backerboards in place, use a 1/4" square-notched trowel to apply a latex-portland cement setting bed to the subfloor. Then, immediately laminate PermaBase to the subfloor, with printed side out. Next, fasten the backerboard every 8" o.c., in both directions, leaving a 1/8" space between all joints and corners.

Use your notched trowel again 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. Then, again using your trowel, embed 2" alkali-resistant mesh tape into the mortar and smooth out.

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

For flooring applications with 16" o.c. floor joists, 5/8" tongue and groove exterior grade plywood or 3/4" tongue and groove exterior grade OSB may be used. For 19.2" o.c. and 24" o.c. floor joists, 3/4" tongue and groove exterior grade plywood or OSB must be used. Tile size for floors with 24" o.c. floor joists must be 12" x 12" or larger.



- ❶ Tile
- ❷ Latex-Portland Cement Mortar
- ❸ Fiberglass Mesh Tape (Alkali Resistant)
- ❹ PermaBase Cement Board
- ❺ Plywood
- ❻ I-Joists

Important Things to Know

- Professional's choice for walls, showers, floors, countertops, exterior thin brick, stone and tile.
- Fastening close to the edge is a breeze thanks to the patented reinforced edge.
- Cuts easily with a standard utility knife.
- Score/cut on printed side of panel. Install with the printed side visible.
- PermaBase carries a Lifetime Limited Warranty for interior applications and a 15-year Limited Warranty for exterior applications.
- It is not recommended for use with vinyl flooring.
- Code approved for wet area installations per ASTM C 1325.
- **Mold resistant** – lowest water absorption – best tile bond.
- PermaBase products have achieved GREENGUARD GOLD Certification for indoor air quality.



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