

INSTALLING CEMENT BACKERBOARD

Cement backerboard is made expressly as a substrate for ceramic tile. Installed over plywood or other underlayment on floors, countertops, or walls, it provides a solid, stable surface that is unaffected by moisture or temperature changes.

Center the backerboard edges on joists and studs. Mark the joist and stud locations before you start. Because you won't be able to see marks after you have troweled on the thinset, mark joist locations on the wall and stud locations on the ceiling.

Offset the joints by half a sheet where possible. Leave at least a 1/8-inch gap between sheets and a 1/4-inch gap at the walls (about the diameter of a pencil).

Scoop thinset out of the bucket with a margin trowel, then spread it with the notched trowel recommended by the adhesive manufacturer.

PRESTART CHECKLIST

- TIME**
About 30 to 45 minutes per square foot of surface
- TOOLS**
Drywall square, carbide scribe, utility knife, rasp, tape measure, cordless drill, carbide hole saw, compass, hammer for large holes, trowel, margin trowel, corner drywall knife
- SKILLS**
Precise measuring and cutting, driving fasteners with cordless drill, troweling
- PREP**
Prepare, vacuum, and damp-clean surfaces; install waterproofing membrane in wet locations
- MATERIALS**
Thinset, backerboard, 1 1/4- and 2-inch backerboard screws, 2-inch gummed fiber mesh tape, 2x4 lumber for blocking (walls only), 8d nails

Cutting backerboard sections



1 Protect finished floors with a tarp. Backerboard particles will easily scratch a floor. Mark the line to be cut and position a drywall square or metal T square on the line. Using a carbide backerboard scribe and firm pressure, scribe the cut line. Make several passes.



2 Stand the sheet on edge or turn it over. Working from the side opposite the scored line, brace the board with your knee on the line and snap the board.

Cutting small holes



1 Set the board against the pipe or other obstruction. Mark the diameter of the hole to be cut. Use a tape measure to locate the center of the hole. For faucets measure the location of each faucet hole from the wall and from the tub or floor.



2 Use a cordless drill and carbide-tipped hole saw or coring saw to cut small holes in backerboard. Place the drill point of the saw on the mark you made, and use light pressure and high speed to cut through the backerboard.

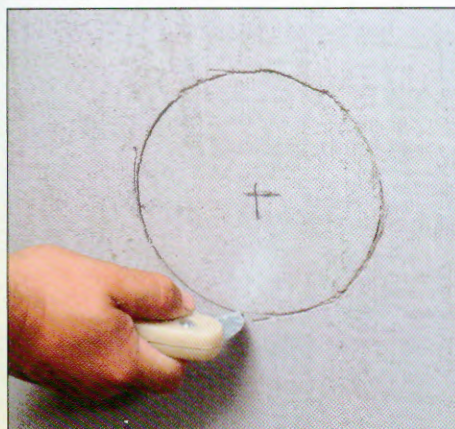


3 Keeping the pieces at an angle and using a utility knife, cut through the board to separate the two pieces. Depending on how deeply you made your first cut, you may have to make several passes with the knife to separate the pieces.

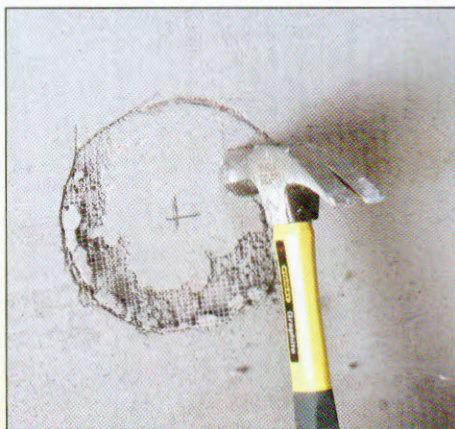


4 Backerboard cuts are rough, whether made with a carbide scriber or a utility knife. Pieces being joined should have as smooth an edge as possible. Use a contour plane with a serrated blade, a rasp, or a masonry stone to smooth out the edge. Keep the tool perpendicular to the edge of the board and pass over the board several times until its surface is flat.

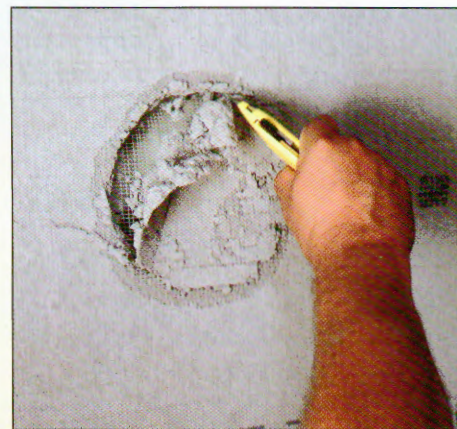
Cutting large holes



1 When the diameter of a hole to be cut exceeds the size of available hole saws, measure the obstruction and use a compass to mark its location on the backerboard. Then score completely through the backerboard mesh with a utility knife or carbide scriber.



2 Support the cutout with the palm of one hand, if necessary, and tap the scored edge with a hammer. Continue tapping until the surface around the circumference crumbles. Alternatively, drill a series of small holes around the circumference.



3 Using a utility knife, cut through the mesh on the opposite side of the board. Push the cutout through and smooth the edges with a rasp, serrated contour plane, or masonry stone.

Installing backerboard on floors



1 Mix and pour thinset (*page 121*). Hold the smooth side of a notched trowel at a 30-degree angle and spread the mortar in a thick, even coat, forcing it into the subfloor. Then, keeping the notched side of the trowel in contact with the floor and at a 45- to 75-degree angle, work the mortar into ridges.



2 While the mortar is still wet, tip the board on a long edge and hinge it toward the floor. Line the first board on a joist and keep a gap of $\frac{1}{8}$ inch between boards, $\frac{1}{4}$ inch at walls. Manufacturers' directions may vary, but typically you should stagger the joints. Walk on the board to set it in the mortar.



3 Using a cordless drill and phillips bit, drive backerboard screws through the board and into the subfloor at about 8-inch intervals. Use 2-inch backerboard screws at the joists and $1\frac{1}{4}$ -inch screws in the field. Set the screws so they are flush with the surface of the board.

Installing backerboard on walls



1 Nail blocking between studs to support joints, if necessary. Apply construction adhesive to the studs. Screw the board to the studs and blocking. Rest the next pieces on $\frac{1}{8}$ -inch spacers (8d nails) before fastening.



2 Use 2- or 4-inch gummed tape over each backerboard joint. Press the tape into the joint and unroll it as you go. Use a utility knife to cut the tape at the end of the joint.



3 Apply a thin coat of thinset mortar to the taped joint with a margin trowel. Trowel on enough mortar to fill the joint and level it with the backerboard. Feather the edges until they are smooth.



4 Apply 2-inch pregummed fiberglass mesh tape over each joint, pressing the tape firmly on the backerboard. The tape cuts easily with a utility knife. Use 4-inch tape (if available) for increased strength. Alternatively you can embed ungummed tape in a thin coat of mortar applied to the joints. Use this method where stronger joints are required—in stone-tile installations, for example.



5 Whether you have used ungummed or pregummed tape, finish the joint by applying a thin coat of thinset mortar over the tape. Use a margin trowel to scoop mortar from the bucket. Apply the mortar so it levels the recess in the joint from side to side. Feather the edges to avoid creating high spots under the tiled surface.

Taping corners



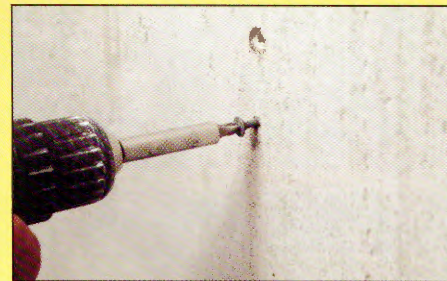
Tape corners with either 2-inch or 4-inch gummed fiberglass mesh tape. In either case do not precut the tape to length. Unroll it as you press it into the joint and cut it when you reach the end. Precut lengths of gummed tape may roll up and stick to themselves before you get them on the board.

If using 2-inch tape, place one length along one edge and another length along the other edge. Bridge the central edges of the corner with a third length of tape. Four-inch tape hastens the job. Fold the tape in half as you press it into the corner.

If using ungummed tape, first spread a thin coat of mortar into the corner joint and smooth it with a drywall corner knife. Then embed the tape in the mortar. With any kind of tape, finish the joint with a thin coat of mortar, feathering the edges smoothly.

STANLEY PRO TIP

Fix backerboard screw snaps



Backerboard fasteners, unlike drywall screws, are made to withstand the rigors of tile installations. Occasionally, however, one will snap off. Check the torque setting of your cordless drill to make sure the clutch slips when the screw just dimples the board. If a backerboard screw snaps, remove the loose piece and drive another about 1 inch away from the first one.