

# Tiling Over a Laminate Counter

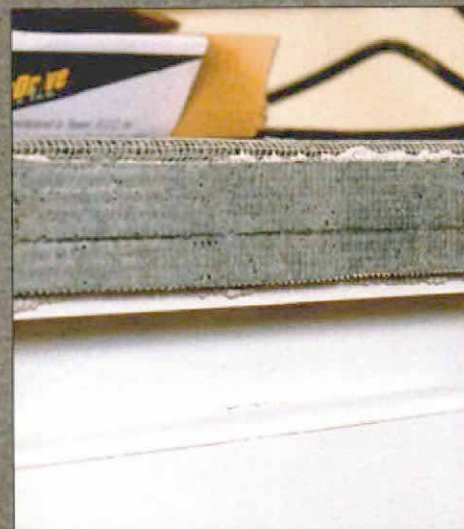
Thanks to cement backerboard, you can make a new countertop without ripping out the old one

BY DAVID HART

I tear out tons of tub surrounds and sheet vinyl every year and install ceramic tile. That type of remodeling makes up the bulk of my work. Other than an occasional mud-set floor, I use cementitious backerboard as tile underlayment on walls and floors. After having mixed results with plywood, I found that backerboard also works great for countertop renovations.

The major advantage to installing backerboard over an existing laminate countertop is that it keeps down the total cost of the tile installation. Instead of building a new countertop, I set the tile on a sheet of 1/4-in. backerboard that's screwed to the old laminate. The backerboard provides a sturdy, stable substrate for the tile, it saves me a day (or more) of labor, and it can knock several hundred dollars off the total cost of the project. (Obviously, this method won't work on post-formed counters.)

## CUT AND FIT THE BACKERBOARD



**Narrower edge strips are more easily concealed.** To ensure that the tile covers the backerboard, the author keeps the edge strips at least 1/4 in. back from the counter's edge.

**Cutting backerboard with a grinder is dusty but quick.** Although backerboard can be scored with a utility knife and snapped, an angle grinder fitted with a diamond blade cuts a cleaner line faster.

Why not install the tile directly on the countertop? It doesn't work. I learned the hard way that latex- or polymer-modified thinsets don't bond well to plastic laminate, even though a mortar manufacturer assured me that they would. After two installation failures involving only thinset, I now overlay the laminate with backerboard and haven't had a callback since.

### **Make sure the original counter is sound**

Because a new sink is often part of a counter renovation, my first step is to determine the size of the new sink cutout. If the new sink is smaller than the original, I have to rebuild the counter to give the sink proper support before overlaying the top with backerboard. If the new sink dimensions are larger, I cut the countertop to the correct size and continue with the installation. (It's also worth not-

ing here that unless they have flexible water supplies, most sinks need to be replumbed due to the increased depth of the counter.)

I also check the condition of the counter's particleboard. Prolonged exposure to steam from a dishwasher or water seepage from around the sink can turn particleboard into little more than loose sawdust. The best way to check is to crawl into the base cabinet and examine the underside of the countertop with a flashlight. If I can dig particleboard apart with a screwdriver or pocketknife, or if it's swelling from exposure to moisture, then the damage is probably too severe to use this installation method. Scrap the existing top, rebuild it, and quit reading this article.

All laminate countertops will move when you pound a fist on them, but excessive movement will lead to cracked grout joints and, eventually, loose tiles. Cement backerboards help to tighten any floor or counter-

top if installed properly, but bouncy or spongy tops need to be fixed or scrapped. Often, a few screws driven up into the countertop through the cabinets' corner brackets will stiffen a bouncy top.

It's also important at this early stage to measure the height of the tiles that cover the edge of the counter (called V-cap) and compare that dimension to the height of the countertop's finished edge. The V-cap should cover the countertop edge and backerboard. Typical V-cap covers about 1 3/4 in., which doesn't leave much tile hanging below the substrate; some run deeper, and others run a little shallower. I also make sure the cabinet drawers don't hit the tile overhang.

### **Cutting cement backerboard**

If I need to keep the job site clean, sometimes I cut backerboard with a utility knife and a straightedge. Although it's slightly more ex-

## GLUE AND SCREW TO THE COUNTERTOP



**An autofeed screw gun speeds a tedious job.** Faced with a day of driving screws into substrate, the author uses an autofeed screw gun that starts and seats each screw much faster than by hand.

**Thinset increases the bond.** Like peanut butter spread between two pieces of bread, thinset troweled onto the counter will fill voids beneath the backerboard and strengthen the substrate.

## TEST-FIT AND SET THE TILE



**Layout starts from the center.** To ensure a well-spaced layout, the author places whole tiles across the space, using a center mark as a reference. The remaining space is divided into two partial tiles.

**V-caps go on first.** These narrow right-angle tiles form a border for the square field tiles. Starting at the exterior bull-nose corners, the V-caps are laid out in an equal pattern that ends at a wall or a mitered inside corner.

pensive than other backerboard, Durock (United States Gypsum; 800-874-4968) is somewhat softer and easier to cut with a standard utility knife. Yes, I burn through blades, but it's quick and virtually dust-free.

Utility knives don't work well on harder, slicker boards such as Wonderboard (Custom Building Products; 800-272-8786), so to cut those types of board, I rely on a right-angle grinder with 4-in. dry-cut diamond blade (photo left, p. 102). A vital piece of equipment for compound or circular cuts as well, this tool throws a cloud of dust anytime I cut cement board with it, so I never use it in an enclosed space.

I always lay the board in place dry to check the fit; I usually allow up to a 1/2-in. gap between the counter and wall and up to a 1/4-in. gap between individual pieces of board. The important thing here is that I don't want the backerboard to extend beyond the edges of

the top. After I cut the backerboard to fit the existing top, I cut strips for the counter's edge about 1/4 in. narrower than the edge of the countertop (photo right, p. 102) so that the backerboard doesn't stick out below the bottom of the edge cap.

### Modified thinset and screws make a better bond

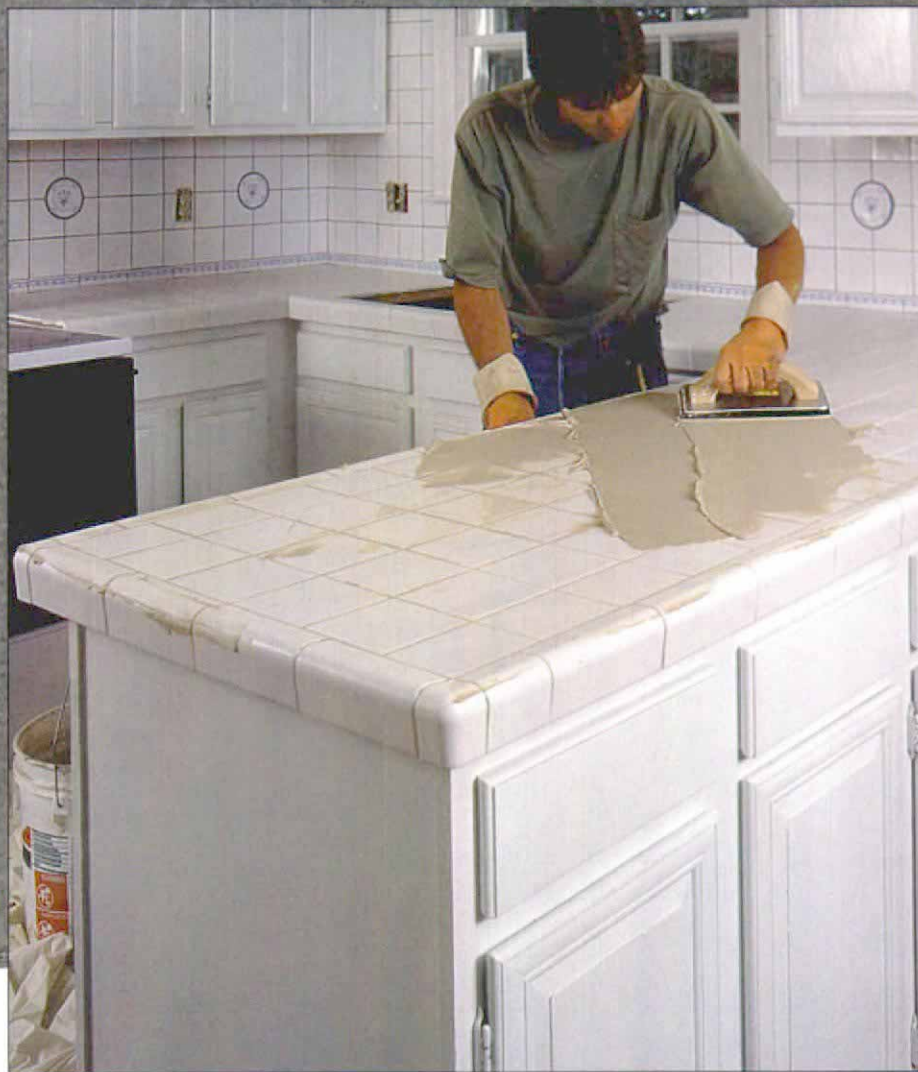
By itself, 1/4-in. backerboard offers no additional strength when attached directly to the substrate; a layer of the thinset beneath the backerboard fills the voids and creates a vacuum that is nearly impossible to break. I never skip this step. Unmodified mortar doesn't provide any bond to the laminate, although it will stick to the backerboard, so I always spend the few extra dollars and get latex or polymer-modified thinset, which cures harder than unmodified mortar and allows a small amount of deflection.

It's important to mix thinset with the proper amount of water. As a rule, too much water will create a weak bond; too little makes the product tough to trowel, and it may not bond to the tile or backerboard properly. I try to mix it so that it has a smooth, creamy consistency. If the mix clings to my trowel without running off and still spreads easily, then I know I've got a good mix.

After mixing a batch of thinset, I trowel it onto the counter (photo left, p. 103) with a 1/4-in. notch trowel, trying not to spread more thinset than I can use in ten or fifteen minutes. For an experienced tilesetter, that can mean the entire counter, but for those new to this type of work, that might mean covering a small section at one time. Once a section of counter is covered, I lay the backerboard in place and screw it down.

Because the board is only 1/4 in. thick, I use screws that are 1 in. long. Longer screws

## FINISH UP WITH GROUT



**Grout works best when spread in small areas. Worked into tile joints with a rubber float, grout tends to set up quickly, and it becomes difficult to remove from the tile surface. A clean, damp sponge is the best tool to wipe excess grout from tiles and to smooth grout lines.**

might protrude through the bottom of the particleboard and give someone a nasty scrape. I like to space the screws about 6 in. apart on the perimeter of the board and 8 in. to 10 in. apart on the inside. Although I have used loose screws and a screw gun, I usually rely on a Makita (800-462-5482) autofeed screw gun (photo right, p. 103); it's just quicker. I try to make sure that there are no bubbles in the backerboard and that I seat the screw heads flush or slightly below the surface.

### **Tile layout: Big tiles are better**

Once the counter is ready, I take time for a careful tile layout. Nothing will ruin an installation more than a poor layout. For this project, I first installed the 6-in. V-caps, starting from the outside corners and working toward the wall (photo left, facing page). I butter the backside of each tile as I go, which makes the next step cleaner. Once the

edge is complete, I lay out the interior tile pattern dry (photo right, facing page) to see which tiles will have to be cut. On a perfect installation, I would end up with full tiles across the full width of the counter, but that never happens. The best installation will have the largest tiles possible in the most visible areas. And I'll often try to cut a small amount from tiles on both sides of the layout rather than cutting a large amount from the tiles on one side.

Once I've checked the layout, I start applying enough thinset to keep me going for about ten minutes. If the mix sits on the backerboard for much longer than that, it starts to skim over, and then it won't bond with the tile.

### **Apply small areas of grout**

After the tile is set, I wait a day for the thinset to cure before I start grouting. Most grout

has a modifier in it, which creates a stronger, more stain-resistant grout, so there's no need to add latex to the dry powder. The grout/water mix should be stiffer than toothpaste, but loose enough to push across the tile without great force.

Using a rubber float, I usually won't spread more grout than I can work in about ten minutes (photo above left). I don't allow the grout to sit on the tile surface for long, either; once it has hardened, the grout is difficult to remove. I use a large damp sponge to smooth the joints and to wipe off the face of the tile (photo above right). It's important not to wipe too much out of the joints, to rinse the sponge frequently and to wring the excess water out of the sponge. Too much water can discolor or weaken grout. □

David Hart is a tile contractor and outdoors writer living in Centreville, Virginia. Photos by Charles Bickford.