

Ask Jon Eakes

# Laying counter, floor or wall tiles in a professional manner

Last Updated: Monday, March 10th, 2008, Created: Monday, March 10th, 2008

It may surprise you to hear that despite silicone sealants and the like, neither the grout between ceramic tiles nor the tiles themselves are actually moisture or vapour proof. Wherever water can sit on a tiled surface, or steam can soak into grout, the wood below can be destroyed by moisture seepage. That is why shower stalls are always built with a waterproof drainage layer within the mortar bed and should be built with a water/vapour proof membrane behind all the tile. In addition, the primary reason for cracks between tiles is movement of the wooden base.

Several years ago on my TV show I demonstrated various tile applications using membranes and other materials from the company Schluter, a company that specializes in and continues to innovate in tiling systems, although they don't sell any tile themselves. They have an extensive industrial web site at Schluter.com but more recently they have asked me to help them develop a special web site that would really bring all the information about tiling together into one place that was easy to access for everyone -- dealing with everything from an understanding of tiling systems to the details of materials and how-to documents and videos. In addition they wanted to make a highly visual site with less text and more information -- hence a lot of video -- which is precisely what I do best. It is a pleasure working with people who insist on education over advertising. May I invite you to join me in a visit to SchluterHouse.com.

One of our viewers wanted to tile a kitchen counter and anticipated that he needed to do something special to keep water from rotting out the counter below, water from above or steam from the dish washer below. So I took off for the Terrazzo, Tile and Marble Association (TTMAC) training centre where I watched a professional install tiles with the Schluter-Ditra system. Essentially this system creates both a waterproof membrane under the tiles and an uncoupling membrane between the expansion and contraction of the wood and the non-movement of the tiles above. For trouble free shower stall installation they have a special Kerdi fleece membrane that does not have the waffle pattern. Check out their shower base kit if you are thinking about tiling a shower.

Step by step through the photos above:

Apply thinset mortar to the base.

Imbed the dimpled Schluter-Ditra membrane into the mortar.

Do the same thing for the edges. You can use staples to temporarily hold the trim pieces in place.

In the same manner as for drywall corners, apply thinset mortar to the wall/counter joint and embed a special waterproof joint tape.

Apply more mortar over the tape and set in the metallic trim pieces for inside corners. These pieces are embedded under the tiles and provide a grout free joint as well as an alignment and spacing mechanism for the tiles at the joint. They come in various colours to match the final grout colour.

Fill all the dimples in the membrane with a coat of mortar.

Embed the waterproof joint tape all around the sink opening and down around the wood of the counter. This will prevent any water which might flow under the sink lip from coming into contact with the wooden counter. Place the sink over this tape.

Now apply a full bed of thinset mortar over the entire surface.

Install the metallic edge trim over the edges. This has an under the tile mounting flange the same as the inside corners, and also comes in a variety of styles and colours. Embedded into the mortar, it becomes a permanent part of the installation and allows you to butt tiles to it both on the top and from the edges, solving the problem of what to do with the exposed edges of the tiles.

Set in the tiles, making sure to have full tiles in the front, and any trimmed tiles at the back walls.

The sink itself could be left slightly below the level of the tiles so that it is easy to flow from the tiles into the sink or it could be raised to end up flush with the top of the tiles. It can also be removed once the tiles are measured out and installed over the tiles if desired. Butting into a raised sink, or installing the sink over the tiles hides all cut tile edges.

For the longest lasting and easiest to clean finish, use an epoxy grout.

**Keywords:**

Alternative, Ceramic, Counter, Floors, Membrane, Mortar, Techniques, Tiles, Walls, Waterproof

**Article 1957**

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