

Preventing leakage through a shower floor

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It always surprises people to learn that neither siliconed grout nor glazed tiles are totally waterproof. If there is not a waterproof membrane below the tiles, the heavy flow of water in a shower would eventually soak through the base and rot out the floor below. No amount of silicone sealant nor caulking will stop it.

The photo shows a proper way to build a floor drain. Note how the water on the left side soaks easily into the base mortar. We must avoid letting water get to that base. First there is a sub-drain flashing that sits right on the mortar bed. In some shower drains this is just a lower flange in the drain itself. The one in the photo is made by Schluter Systems. Then a thinset adhesive is applied to the mortar and a waterproof membrane is sealed to the drain and placed across the floor and up the walls a few inches. For more details on this membrane, check out building a base. Now the sub-drain flange is installed. This helps to hold the membrane in place and provides a water pathway from under the tiles (over the membrane) and into the drain.

Now you are ready for more thinset mortar and the setting in of the tiles. A silicone coating on the cured grout has more to do with protecting the grout from staining than from keeping water out of the floor.

Water doesn't flow rapidly through the tiles but moisture definitely moves downward and if there is not a waterproof membrane to prevent it from reaching the structure of the floor, you would eventually have a rotten floor.Â

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. Visit Schluter.ca

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