

BY DOUG HORGAN



## Preventing Shower Curb Problems

**Even the least-trained plumbers** or tile installers take reasonable care with the bottom of a shower pan, but showers can also leak at curbs, walls, and benches, which are much less likely to be done well. One plumber, when we asked him to cover the curb, even said: “The shower pan fills up 1 inch above the drain; everything above that is just a waste of time.”

The damage shown in the photo above (1) is typical of the problems we see on existing showers. Cracks in tile and stone grout lines allow water through the finishes, even when those finishes aren’t submerged. Curbs are especially problematic because they are commonly framed in wood—typically double or triple 2x4s (2)—which shrinks and expands with seasonal changes in

humidity. Those dimensional changes mean that cracks in the grout are inevitable. A shower is one of the “rainiest” environments we build in—even small cracks or slightly porous stone can let a lot of water through.

Simply running the liner to the outside edge of the curb isn’t enough to prevent water damage. Any water that seeps through cracked grout lines will easily wick under the liner edge and soak the framing, which is what had been happening in this shower for years (3). We’ve seen similar damage on numerous other existing showers.

### PAN LINER

On most showers, we install a standard shower liner. We keep copies of the manufacturer’s directions



on site, and our subcontractors know to bring preformed outside corners and the correct adhesive for the material. We cover the curb completely, all the way to the floor.

Even a well-done shower liner is no guarantee, though. Liners are installed early in the job and can easily be damaged by trades coming in afterward. Tilers, especially, love to put screws through the curb to hold their backerboards. There's no way to prevent this, so additional measures are required to protect against water damage.

### SECOND LAYER

For extra protection at curbs, knee walls, and benches, we use Schluter Systems' Kerdi liner, a soft polyethylene membrane that is applied over the top of the tile back-

er with a trowel-applied, thin-set mortar.

There are other sheet membranes and liquid-applied products that will work, but the same principles apply: The liner needs to cover the top of the curb, extending down the outside face and lapping onto the floor (4). It should also protect the drywall outside the shower (5). Preformed corners provide complete coverage at outside corners (6). We've had good success using dry-wall mud directly on Kerdi, so we don't worry about how far we extend it.

Kerdi is easily available and familiar to our tile contractors. I do know a couple of guys who prefer Laticrete 9235, a paint-on waterproofing, but if you apply the recommended two coats, the installation process takes a lot longer.

The key to any waterproofing is complete

coverage. The applications shown in photos (7) and (8) are examples of incomplete coverage that are likely to fail. Both applications leave critical gaps in the waterproofing where cracks in the grout are most apt to form. Even though these areas are "outside" the enclosure, water can easily drain into them and soak the framing.

### BENCHES & TUB DECKS

A good example of a catastrophic failure can be seen in this master bathroom, where one end of this tub deck is inside the shower enclosure (9). It looked to be in good shape, but we got called in when water started to leak through the ceiling below (10). When we opened up the shower, we could see that the rot was extensive. There were termites living in the



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floor framing beneath it (11).

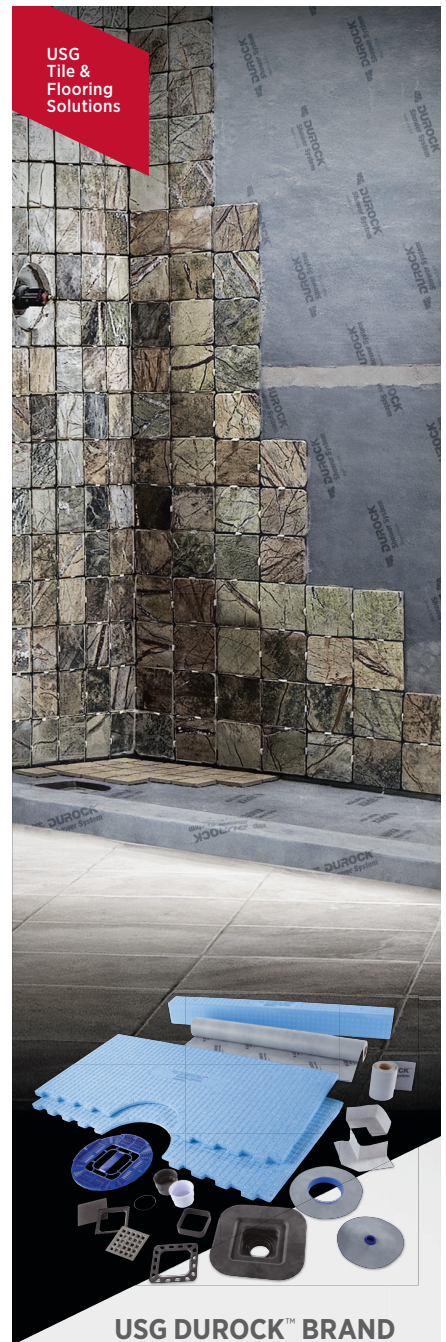
To prevent this kind of disaster, all surfaces within the shower enclosure, including benches, tub decks, or any other features a shower might include, must be completely covered (12).

### DOOR TRACKS

The damage that occurred in all the previous photos took years to show up. But the crack in the grout (13) formed within an hour of the installer screwing the door track to the wall.

Door tracks channel the water pouring down a glass door to the ends and funnel it into the areas where the grout is most likely to crack (14, 15). Weep holes and a judicious amount of sealant in track joints can help, but the lasting solution is to make sure the liner beneath the tile is perfect, so that a constant flow of water doesn't ever reach the framing.

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