

**Q Is it okay to use epoxy grout with natural stone pebbles for a tile shower floor? Are there any special considerations when using either epoxy or a cement-based grout with natural stone, which is (presumably) unsealed and possibly porous?**

**A** Tom Meehan, a second-generation tile installer in Harwich, Mass., and author of *Working with Tile*, responds: There is an art to grouting natural stone pebbles, but it is not difficult in any way if you know your product and the materials needed to perform this task. First of all, there are two types of natural stone tile: Flat stones, which have been cut to a consistent thickness, and irregular raised pebbles, which vary considerably in both size and thickness. Raised pebbles used to be popular, but the highs and lows created by the rounded stones can block water drainage, which becomes a maintenance issue requiring more frequent

cleaning. That is why flat stones are now used about 90% of the time in my area. Even with them, I increase the pitch of the shower floor slightly to a little more than  $\frac{1}{4}$  inch per foot to help avoid drainage problems.

Regardless of the type of natural stone you are using, the pebbles should be thoroughly cleaned and sealed prior to being grouted. After setting the stone in thinset mortar, I inspect the joints carefully and clean them up with a utility knife so that the dry thinset is at least  $\frac{1}{8}$  inch below the surface of the stone tiles. Then I go over the joints with a damp sponge, rinsing the sponge frequently in a clean bucket of water. I'm careful not to use too much water and flood the joints, since they must be thoroughly dry prior to grouting; any water that accumulates in them will weaken the grout.

When the stone pebbles are dry, I seal them with Miracle Sealants 511 impregnator sealer, applying a thin coat with a foam brush or equal applicator. If the stones are very porous, I'll add a quick second coat, which will make the stones appear darker at first. I tell my clients not to worry, though; after the sealer dries, the pebbles will once again have that dry, natural stone look.

When it comes to grouting, keep in mind that some joints will be as wide as  $\frac{1}{4}$  inch, with some pebbles much thicker than others (which is part of the desired look). While you could use epoxy grout with pebbles, I typically use it only in areas that need to be chemically resistant to bacteria, like food processing areas or—in some cases—steam showers. I find that the strict time frame required to work successfully with epoxy grouts can be counterproductive and prefer to use traditional cement-based grouts for most applications.

For irregular natural stone, I recommend using a good, sanded, high-performance grout, such as Tec Power Grout, Laticrete Permacolor Grout, and Mapei Keracolor Grout. These grouts are easier to work with than epoxy grout for this application and have additives that make them stronger than regular grout, with more consistent color and mildew resistance.

When using these grouts, be sure to closely follow the manufacturer's mixing and application instructions. For example, avoid using too much water while cleaning the grout residue off the surface of the stones, because it will not only weaken the grout but will also wash out some of the color. I work from a couple of buckets of water, one with clean water for washing and one for rinsing out my sponge on the second wash.

At the end of the job, I apply another light coat of sealer over the entire floor, which helps protect both the stone and the grout.



Irregular stone pebbles add a natural design element to a tiled shower but should be installed over a base with more pitch than normal to allow for better drainage.

Photo by Tom Meehan