

Repairing Ceramic Floor Tile

By Sean O'Halloran

From time to time it may become necessary to make a repair to your ceramic tile floor. These repairs can vary from simple grouting repairs to replacing cracked tiles. Making repairs is, for the most part, an easy procedure that can be done in a relatively short amount of time and with limited tools. Identifying and rectifying the cause of these problems is, in most cases, almost as important as repairing the damage itself.

While tile remains a resilient and long lasting flooring option, ceramic does have little impact resistance. Tile can be walked on day in and day out virtually impervious to wear, as long as the substrate or subfloor has been properly installed, while dropping a jar of pasta sauce can result in a crack. These are the pitfalls of using a fired product in the average home, but with the knowledge to repair any potential mishaps, you will remain on step ahead of the game.

Determine the Cause of the Damage. Identifying the cause of your damage is key in making a repair that will be as long lasting as the floor itself. If a crack is present, there are three possibilities: an impact crack from a blunt shock to the surface of the tile, a subfloor issue such as uneven seaming or high screw head within the substrate, or natural circumstances that can cause cracks or damage. These natural circumstances can include pressure changes in the space itself, natural cavities or flaws in the tile, or just general wear over a prolonged period of time. The first two can be provided for, while the latter requires a certain amount of extrasensory perception to prepare for.

Repair a Substrate Problem. Substrate problems can be identified by a recurring crack, or a series of cracks along a specific line. Either way, the repair may not be as substantial as you may think. Many people think that a substrate issue will require the total removal of the floor, but you might be able to get away with a slightly simpler repair requiring far less labor and removal. In certain cases, you may find that the crack line lies in the middle of a large expanse. If this is the case, remove a series of courses, say two or three in either direction of the crack, install a thin sheet of leuon, and disperse the slight rise in tiles of the series of courses. If this is done properly, the slight high spot will be virtually unnoticeable.

Repair Impact Damage.

1. Identify the damaged tile, and inspect the surrounding tiles for any damage.
2. Remove the grout from the bordering tile, along all sides of the cracked tile.
3. Once that grout is removed, use a hammer and chisel to break up and remove the damaged section. Take care not to break up the substrate or surrounding tile, as

- this could exponentially increase your workload to the point where you will need to replace the entire floor.
4. Once you have cleared the area and fully removed the grout from the bordering tiles, check the substrate for any remaining adhesive or other imperfections that could cause the replacement tile to not sit flat and level.
 5. Dry fit your replacement tile to ensure a good, even fit. If your installation was properly planned, you should have tile left over. Tile is created in batches, and each batch is slightly different from the others. These differences can be as subtle as tone variation or patterning, and virtually unnoticeable when on a shelf, but will stand out when set in place next to a floor of non-batched tiles. Make note of the batch, style number and manufacturer information when purchasing replacement tiles to insure a good match for your repair.
 6. Use a margin trowel to apply a thin pressure coating of adhesive by back buttering the tile. Once the tile is back buttered fully, place five dots, one in each corner as well as one in the middle, and firmly press the replacement tile in place. Check that it is flush with the surrounding tiles. If the tile is not flush, continue to apply pressure, and clean the joints of any excess adhesive.
 7. Once ample time has been given for the tile to set, mix the appropriate amount of color matching grout, and use a gum rubber float to replace the grout to the joints and surrounding area.

Repair Grout. From time to time, grout may become worn or cracked to the point that a repair is necessary. The first step is to remove the damaged area using a grout saw and razor knife. Once the area is cleaned and free from damaged grout, mix an appropriate amount of the same color/type of grout previously used, and evenly spread the mixture with a gum rubber float. Dust the top of the grout with the dry mixture to absorb any excess water seepage, and be sure to clean all the joints and surrounding area extensively. Allow ample time to dry before reintroducing foot traffic to the repaired area.

Now that you have a better understanding of the repair process for your ceramic floor, it's time to stop living with those damaged tiles and do something about it. Many products available today can abbreviate the repair process drastically. Refer to your local home improvement store, and ask one of their professionals for recommendations on specific products for your application.