Ceramic Tile Installation

Once you've established the layout, you can start setting tile.

Be sure your floor surface is thoroughly clean of dust and debris.

Prepare only enough tile adhesive (see) to be used within 30 minutes, this will prevent it from drying out.

Set all of your full tiles first, leaving any cut tiles around the perimeter of the room for last.

Spreading Adhesive

Starting at the center of the room, scoop a glob of adhesive on the floor. Spread it evenly within **one section** using the straight edge of a notched trowel. Try not to cover up your layout lines, you'll need them to align the tiles.

Using the notched edges of the trowel, comb out the adhesive. Hold the trowel at a consistent angle (around 45 degrees) so the top of the adhesive has a uniform height. The pattern of the ridges isn't important.
If the adhesive is too dry, the ridges won't comb out evenly; there tend to be gaps. If i

t's too wet, the ridges won't hold and they'll all blend together.

Again, work right up to the layout lines, but try not to cover them up.

Setting and Spacing Tile

Lay the first tile in a corner, twisting it a little to set it into the adhesive

Test this first tile by prying it up by its corner and looking on the back side. About 70-80 percent of the tile should be covered with adhesive. If you see nothing, the adhesive is too dry. If you see only parallel lines of adhesive, the ridges are too shallow.

Set the remaining tiles, aligning them to your outside layout lines.

Keeping consistent spacing between the tiles is critical for straight, uniform grout lines.

Some tile are cast with spacing lugs along the edges so you can butt those up and get uniform grout lines. And some tile come pre-mounted on plastic grids so the spacing is already established.

If your tile has neither it's helpful to use plastic spacers. You can find these at most hardware or tile supply stores. Once a section of tile is set you can remove the spacers and reuse them.

Once the tiles are in place you want to set them into the adhesive and get them all at the same height. You can do this by putting a padded 2x4 across the tile and gently hit it with a hammer. You can also use a rubber mallet or grout float to set the tile.

After setting a section, clean up any mortar that has squeezed up between the tiles. A putty knife or pencil works good for this. Also, sponge off any adhesive on the tile surface.

You should also remove any plastic spacers before they dry in the adhesive.

Setting perimeter tile

After setting all of your full tiles you can measure, cut and set the tile around the edges. It's a good idea to do these one at a time because the walls may not be square and you'll have to cut each tile a

different width.

If you're installing a tile floor that runs longer than 24 feet, or if the floor is near an outside wall or exposed to areas that will expand due to temperature and moisture changes, you will need to account for expansion joints.

Expansion joints are breaks in the tile field that protect and cushion the tile from movements in the underlayment. In most homes, expansion joints can be made by stopping the perimeter tile 1/4 inch from the wall. These should be filled with caulk after the tile are grouted.

Back Buttering

Sometimes you won't be able to trowel the adhesive directly on the floor, like under cabinets or in small areas. That's when you need to "back butter" the tiles individually.

Spread the adhesive on the back of the tile with a notched trowel. If the tile is too small you can also use a margin trowel to spread the adhesive and scratch in notches with the edge of the trowel.

Set the tile giving it a little twist to insure good contact with the underlayment.