## MARBLE TILE INSTALLATION

Introducing marble tile on floors, it is somewhat more work than other kinds of tiles: More care must be taken during the preparation process because marble tiles can break when stepped on if they are not installed on a level surface.

1. Safety Gear and Prep Work. Put on safety equipment, such as eye protection and gloves, to your risk for injury while you work. Remove old flooring before beginning; you should not lay marble tiles over the current flooring.
2. Prepare the Subfloor. Check the levelness of the floor with a craftsman's level. An unlevel floor can lead to tile breakage over time. Marble tiles require a smooth, flat and a waterresistant subflooring before installation. We recommend using cement board - it will provide the necessary stiffness and while it wont stop moisture, it won't become damaged like a wood base. Also, cement boards bonds well with thin set motar.
3. Check Your Product. Check your marble tiles for any splits or holes on the cleaned surface of the marble by running a fingernail over the surface. In the event that you discover any tile with splits or holes in the surface, don't use them, as they are more likely to crack or break.
4. Take Measurements. Yes, again - even if you already measured twice before purchasing your tiles. It is easier to correct a measurement on paper than it is on cut marble tiles. Review your designs and make sure the measurements all match up!
5. Create Reference Lines. Tiling is best done from the center of a room out, rather than starting from a far way and moving towards an exit. This will ensure a row of tiles mark the center of the room and not grout lines. To create accurate reference lines, measure the center of two opposing walls and divide the room in half with a chalk line on the floor. Then find the halfway point on this line and make a perpendicular line connecting to the other walls, splitting the room into four parts.
6. Check Your Layout. Dry-lay your tiles along the chalk lines you just made and check to make sure that the last tile is not too far away from the wall or that a cut piece will not disrupt your design.
7. Mix the Mortar. You should be using thin set mortar to lay your marble tiles. <ix the mortar according to the manufacturer's instructions and only make a small amount at a time so that you do not over-make and waste any mortar unnecessarily.
8. Spread the Mortar. Begin at the center where your reference lines converge. Pick a corner and spread the just over a tile-shaped amount of mortar using a notched trowel. Once the mortar is spread go back and using the notched sides, scrape grooves into the mortar. There should be enough mortar laid that you can do this without showing the subfloor. This will
actually increase the adhesive strength between the mortar and the marble tile. Note: If you are using marble tiles that are larger than $12^{\prime \prime}$ or are tumbled, then use a $1 / 2^{\prime \prime}$ notched trowel. If you are using marble tiles that are $12^{\prime \prime}$ or smaller, then use a $1 / 4 \prime$ notched trowel.
9. Set the Marble Tiles. Gently lay the first marble tile into place, taking care to align it with your reference lines. Press the marble tile firmly yet gently into place and then use a rubber mallet to gently tap or press the tile into position. You want to tap har enough that the grooves you made collapse but not so hard that the mortar is pushed up and over the tile. While the mortar is still wet, it can be easy to shift a tile at this stage. Be sure to check the marble tile's position against your reference lines.
10. Use Tile Spacers. Continue laying and grooving mortar and adding tiles along your center reference line. We recommend using a tile spacer to keep uniform spacing between tiles where the grout will go.
11. Check Tile Height. It can be easy to lay marble tiles a little higher than others with different pressure from tile to tile. To avoid this mistake, lay a $2 \times 4$ piece of wood over your tiles (with a thin protective blanket between the wood and the tile) once you have completed laying 3 or 4 of them. Tap the $2 \times 4$ and continue the process of laying tiles. Again, take care to not shift the tiles.
12. Review Your Work. Once you reach the wall, take measurements of the gap between the last full tile and the wall. Using a tile saw or a wet saw, create the size tile you need to fill the gap. You should review each row to ensure that your tapping or placing of tiles did not cause others in the row to shift or that the spacers are still in their place. Carefully remove any excess mortar that comes out from under the tile with a paint stick or utility knife.
13. Tile to the Door. As you continue the process, make sure you do not tile yourself into a corner. Begin tiling the section with the door last. Marble tile requires at least 48 hours to set.
14. Seal the Marble Tiles. Although marble tile can be durable, it is also very porous and can be stained if it is not sealed. This step should be completed prior to putting in the grout because the grout itself can also stain your marble floors.
15. Grout the Marble Tiles. Mix the grout per the manufacturer's instructions and only make a small amount at a time. Use a grout float to apply the grout between the tiles and wipe away the excess grout as you go. When you have completed a section, you can use a damp cloth or sponge to clean the tiles of any grout residue. Avoid letting moisture from seeping into the grout lines or from removing grout from the gaps. Allow the grout to dry as directed
16. Seal the Grout. Check the manufacturer's recommendation - usually one week, before sealing the grout with a foam brush. You can add another layer of sealant to the marble tile as well at this stage. You should reseal the marble floors at least once a year (twice if the marble floor is a heavy traffic area).
