

**TILE & STONE INSTALLATION SYSTEMS**

# Tiling and grouting instructions

**Cutting your tiles**

- When cutting tiles, always wear protective eyewear.
- Remember to cut all tiles before you begin to apply the mortar.
- Try to avoid cuts that result in a tile less than half of its original size.
- To make straight cuts, score the tile surface with a tile cutter and snap the pieces apart.
- For curved or rounded cuts, use a wet saw or mechanical cutting tools with recommended bits or cut-off wheels.
- Do not dry-cut with power tools.
- For circular holes, use a carbide-tipped hole saw or mechanical cutting tools.
- When cutting against walls, be sure to leave room for expansion. Keep this expansion joint free of mortar and grout throughout the entire application.



3. Follow immediately with more mortar and “comb” the mortar in one direction, parallel to the shortest tile dimension, using the trowel’s notched side to achieve an even-setting bed.
4. Apply mortar to the back of the tiles (back-buttering) when you are installing tiles measuring 15" x 15" (38 x 38 cm) or larger, when tiles are concave beneath or when tiles are wet from the use of a wet saw.



5. Spread only as much material as can be covered with tiles before the mortar dries or loses tackiness to the touch.

**Step 2 – Set tiles**

- Place tiles in position and firmly apply pressure to the face of the tiles while moving tiles back and forth perpendicular to the trowel ridges. This helps to ensure that the mortar transfers to the back of the tiles and that each tile is in an even plane with adjacent tiles.
- Check several of the set tiles for adequate mortar coverage by lifting them up. Make sure that at least 80% of the tile back is covered with mortar for interior, dry applications and at least 95% for exterior or wet area applications.
- Tile spacers, which can ensure straight and even grout lines, should be placed vertically against the face of the tile and not laid flat in the grout joint at the corners.



**Setting your tiles in 3 easy steps**

**Step 1 – Spread mortar**

1. Use the trowel’s straight edge to apply a thin, even coat to the surface.
2. Use the trowel’s notched edge to spread mortar while holding the trowel at a 45-degree angle to the floor or wall surface.

- Keep a damp cloth or sponge nearby for quick cleanup in case you drop mortar or adhesive on the tiles or any other surfaces.
- Keep at least 2/3 of the tile thickness clear in the grout joints for application of the grouting material.

### Step 3 – Allow for curing/drying

- Do not disturb or walk on tiles while they are drying.
- Follow the setting material manufacturer's directions on curing time before grouting.
- In addition to the tile size and the setting material used, curing or drying times will vary due to temperature, humidity, the porosity of the tile and the substrate.



## Grouting in 3 easy steps with MAPEI Flexcolor™ CQ or MAPEI Flexcolor 3D

### Step 1 – Surface preparation

- Certain tiles with high absorption, surface porosity or rough surfaces may require sealing before grouting to prevent permanent staining.
- The application of a grout release over certain types of porcelain or textured surface tiles or stone may be needed to lessen the chances of a residual grout haze and to avoid staining the tile.
- Caution: Some types of glazed ceramic, glass, and natural-stone tiles can be permanently stained, scratched, dulled or damaged when grouted with pigmented grout or sanded grout formulas.
- Take all the necessary precautions to ensure that the tiles are compatible with colored grouts. Check the tile or marble manufacturer's literature and test grout in a separate sample area before grouting to determine the product's suitability with colored and/or sanded grouts.
- Before grouting, make sure that the tiles or stones are firmly set and that the mortar or adhesive is completely dry.
- Wipe, brush and vacuum grout joints so that they are clean and free of standing water, dust, dirt and foreign matter. Ensure that excess mortar/adhesive as well as tile spacers have been removed from the joint area.
- Clean the tile or stone surface thoroughly to remove dust, dirt and other contaminants that may cause grout discoloration.

### Step 2 – Application

1. Both MAPEI Flexcolor CQ and MAPEI Flexcolor 3D require no mixing and are ready to use straight from the packaging. If the material seems stiff, mix by hand with a margin trowel to a smooth paste.

2. Before applying the grout, moisten the tile surface with a damp cloth or sponge, using a minimal amount of water so that the grout joints remain dry.
3. Work in small, manageable areas of no more than 20 square feet (1,86 m<sup>2</sup>) at a time.
4. Holding a rubber float at a 45-degree angle, force grout into the joints to completely fill the joints with no voids.



5. Remove excess grout from the tile surface by holding the rubber float at a 90-degree angle (perpendicular to the tile surface) while moving it across the tile in a diagonal direction.

### Step 3 – Cleanup

1. Cleaning should begin after the surface develops a dry, skinned-over appearance – within 5 to 10 minutes, depending upon the temperature, humidity and tile's absorption rate.
2. Never allow grout to remain on the tile surface for an extended length of time before completing the initial cleaning.
3. Use a lightly dampened sponge or white scrubpad to wipe in a circular motion across the tile surface, removing the bulk of grout haze.
4. Use a clean, lightly dampened sponge to wipe in a diagonal motion across the tile surface, removing any excess grout. Avoid wiping in the same direction as the grout joints.
5. Grout and clean one section at a time rather than applying grout over the entire area.
6. After each wipe-down, rinse and wring out the sponge to prevent adding excess water to the tile surface or grout joints.
7. Change the rinse water frequently. Having multiple buckets of clean water and sponges on hand will simplify this process.
8. Make sure that all tiles are thoroughly cleaned before the grout dries.



### Caulking

Once the grout is dry, use one of MAPEI's color-matched caulks – Keracaulk® S, Keracaulk U, Mapesil™ T or Mapesil 3D – to fill empty joint areas around molding, sinks, movement joints and more. Selection of the correct caulk will

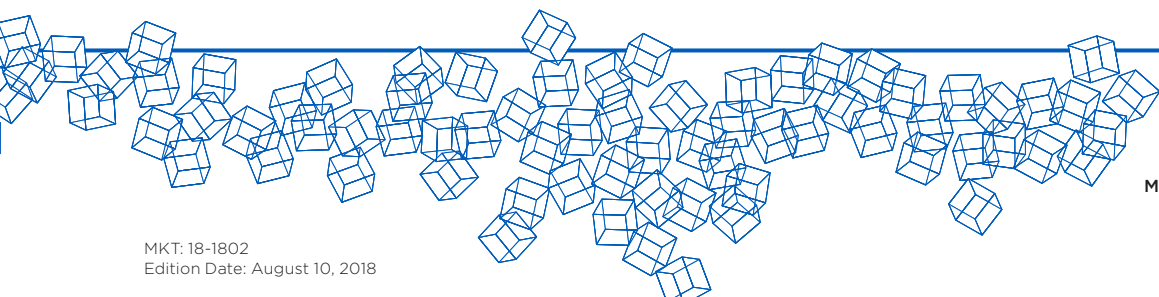
depend on the application area and grout products used. Call MAPEI's Technical Services Department for help in choosing the right products for your application.

### Sealing

Sealing of *MAPEI Flexcolor CQ* and *MAPEI Flexcolor 3D* is not required, but doing so may be helpful in cleaning the grout and maintaining its life and beauty. A sealer will protect the grout from absorbing water and from many types of stains.



Jobsite conditions vary and may present circumstances not covered in this document. For the most current product information, visit [www.mapei.com](http://www.mapei.com) or contact MAPEI's Technical Services Product Support Team.



MKT: 18-1802  
Edition Date: August 10, 2018



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