

## QUARTZ TILE INSTALLATION TIPS

---

Designers like the true white color of quartz tile as well as the vast array of unique color options now available. Quartz tile has rapidly grown in popularity and is being supplied by many manufacturers and distributors. Like granite, it is heat resistant, and became trendy for countertops, but unlike granite, this engineered stone will char and burn if a torch is applied.

### What is Quartz Tile?

It should not be confused with quartzite and granite, which are natural stones that contain quartz crystals. The quartz tiles we find in the market are engineered from crushed natural quartz blended with organic resins. The tile is typically 70 to 90+ percent crushed quartz with the balance comprised of polyester or epoxy resin. Because the material is manmade, manufacturers are capable of producing many colors and shades, including duplicating the look of natural granite. The advantage is that color and appearance are controlled in a factory and tile to tile color consistency is excellent. This is unlike natural stone, which varies from piece to piece depending on where it was mined. Because these tiles are not ceramic or natural stone, they require special attention when selecting installation materials.

### Bonding Mortars for Resinous Quartz Tile

Typical dry-set cement mortars are formulated to bond to ceramic, porcelain and natural stone surfaces, which are inorganic materials. They do not bond well to organic resin or polymer surfaces. To comply with ANSI A108.5, polymers are added to modify dry-set cement mortars and improve adhesion to these organic surfaces. CUSTOM MegaLite® Crack Prevention Mortar contains high levels of advanced polymers and will adhere to most surfaces. Due to the wide variety of quartz tile composition, it is imperative to confirm with the tile and mortar manufacturers that a modified dry-set cement mortar can be used for installation. Both tile and mortar should be tested together and confirmed for compatibility prior to installation.

In many cases, a modified dry-set cement mortar is not acceptable for installing a particular quartz tile. However, epoxy is known to bond well to organic resin and polymer surfaces. If unsure about when to use a modified dry-set cement mortar, we recommend the use of EBM-Lite™ Premium Epoxy Bonding Mortar for the installation of quartz tile.

Quartz tile can be quite sensitive to moisture. Moisture can cause the resins and polymers in the material to expand and result in warped tile. The extent of the sensitivity is dependent on the type of organic resin or polymer used and how it was cured in the factory. All dry-set cement mortars contain some amount of free water. If moisture sensitivity is known or suspected, it is best to install the quartz tile with a 100% solids epoxy mortar. EBM-Lite is 100% solids and does not contain any water or volatile solvents.

### Preparing the Substrate for Moisture-Sensitive Tile

The substrate where quartz tiles will be bonded also requires evaluation and should be prepared to industry standards. If the substrate has a high moisture vapor transmission rate (MVTR), this moisture can affect the tile and cause it to dome or curl up. Most manufacturers will have acceptable limits for MVTR and their recommendations must be followed. If high moisture vapor emission is evident, the substrate can be sealed with CMVC Moisture Vapor and Alkalinity Barrier prior to the installation of the tile.

Quartz tile follows the current trend toward large format tile, so many styles available today have at least one side longer than 15". The Tile Council of North America (TCNA) recommends that the subfloor surface should not deviate more than 1/8" in 10 feet when installing tile with one side longer than 15". If the floor is not flat, it can be corrected by applying LevelQuik® RS Self-Leveling Underlayment. TCNA also recommends using a dry-set cement mortar that can be used up to 3/4" thickness after the tiles are completely embedded. Both MegaLite and EBM-Lite mortars can be applied up to 3/4" thick.

### Quartz Tile may Require Preconditioning

Many manufacturers of quartz tile recommend preconditioning of their tile before installation. They recommend storing the tiles for a given time period in the location where they will be installed so they become acclimated to temperature and humidity of the environment. They may also specify the orientation of the boxes when they are stored. All this is to ensure a flat tile for installation. Be sure to fully read the quartz tile manufacturer's instructions before beginning the project and keep in mind that you may be required to precondition the tile for several days before installation.



# QUARTZ TILE INSTALLATION TIPS

---

## **Use a Highly Stain Resistant Grout**

Quartz tile is very stain resistant, so it is important to use a grout that is equally stain resistant. CUSTOM recommends the use of Fusion Pro® Single Component® Grout for filling the joints between quartz tiles. Fusion Pro is guaranteed to be stain-proof, with unsurpassed stain resistance. If chemical resistance is required, use CEG-Lite® 100% Solids Epoxy Grout. Even though quartz tiles have excellent stain resistance, it is important to check for the possibility of grout staining during installation. If grout staining is a possibility, pre-seal the tile with Aqua Mix® Grout Release prior to installation.

## **CUSTOM Technical Services**

When assistance is needed, CUSTOM has a highly qualified technical service staff to help with specific installations based on the jobsite conditions and tile being installed. For questions about tile installation, contact Technical Services at 800.282.8786.

The information in this bulletin is presented in good faith, but no warranty, express or implied, is given nor is freedom from any patent in as much as any assistance furnished by CUSTOM with reference to the safe use and disposal of its products provided without charge. Custom Building Products assumes no obligation or liability therefore, except to the extent that any such assistance shall be given in good faith.



Technical Bulletin

Technical Services 800-282-8786  
custombuildingproducts.com