

# 5 Steps on How To Install Glass Tile

## Step 1 - What type of glass tile is being used?

A critical aspect to a successful glass tile installation is to understand what type of glass tile is being considered, both in terms of how it's made and its size.

### How it's made

Not all glass tiles are made the same way, to the same specifications, nor can they be used in all of the same applications. Some are made in boutique shops where the unique nature of each tile is what's important. Others are made according to consistent manufacturing processes. You'll find, though, three categories of glass tile:

- Cast glass tile with inherent folds, bubbles and creases
- Fused glass tile which is altered using a heat process to create a variety of colors and patterns
- Low-temperature coated glass tile which receives its character from the product that is bonded to the back of the tile

Each of these three categories carries different requirements as to how and where it is to be used. Each has different internal stress points based on how it was made.

In addition, some glass tiles come with specific types of backing that may not be compatible with wet environments. That may not be an issue for a kitchen backsplash; it will be an issue in a shower.

Before beginning the installation process, determine the suitability of the tile for its intended end use and if it meets the requirements of ANSI 137.2.

### What size is it

We've discussed in previous articles how the installer needs to pay attention to the tile size and the installation materials required for larger-sized tile.

This holds for glass tile, as well. ANSI 137.2 defines a large-format glass tile as one with dimensions greater than three inches by three inches which requires specific materials.

>> [See Installing Large Format Glass Tile in a Shower: 10 Steps to Follow](#)

## Step 2 - What will you use to bond the glass tile to the substrate?

Ceramic and porcelain tile can normally be adhered to a properly prepared substrate with a good quality A118.4 latex modified Portland cement mortar. Glass tile, however, is not in the "one size fits all category."

For instance, if a highly latex modified mortar is used to install a low-temperature coated glass tile in which the mortar has a stronger bond than does the coating to the back of the glass, the coating may become distorted and look like crumpled aluminum foil.

Because glass has a smooth surface, it requires a bond strength greater than four hundred psi.

To be certain that this doesn't happen, always contact the manufacturer of the glass tile, the company selling the glass, and the mortar manufacturer. Always obtain the installation requirements in writing as to what should be done and used.

Expect to use a premium high-performance thin set mortar which has a higher polymer content to achieve a strong chemical bond especially if the tiles are large format tile.

### **Glass Tile is Often Transparent**

Unlike traditional ceramic tile, glass tile is often transparent or translucent which requires specific mortars. Using any kind of poor installation techniques - will be visible.

- Consider the color of the thin set mortar
- Consider the proper thin set installation technique

>> [See How to Avoid Visible Trowel Ridges Through Translucent Glass Tile](#)

In the first video below, you'll notice the following technique:

- Clean the substrate
- Apply the mortar using the appropriate notch in straight lines
- Prime the flat edge of the trowel with a small amount of mortar
- Knock down the mortar ridges
- Back butter the clear glass tile with a thin film of about a sixteenth of an inch
- Place the tile into the flattened mortar and beat it in using a beating block and a mallet or grout float to eliminate any voids

### **Step 3 - Is the substrate properly prepared?**

Surface preparation for any kind of tile installation is critical. Again, this is especially true for glass tile.

The substrate must be fully prepared and clean before installing the tile. Ensure that you have no deflection that might affect glass. Glass is fragile and needs additional support to resist cracking.

Don't forget to include movement accommodation or expansion joints.

Failures in glass often result from expansion due to exposure to heat from sunlight or from steam/hot water. Expansion joints help mitigate these failures.

>> [See Why Do You Need Expansion Joints When Installing Tile?](#)

## **Step 4 - What grout will you use for your glass tile installation?**

When it comes to the grout selection, be sure to check the manufacturer's directions and recommendations relating to exposure to water and whether the grout will scratch the surface of the tile.

Determine the best products to use for cleaning grout haze off of the glass surface.

## **Step 5 - Be aware of these watch outs**

### **1. Moisture trapped between the glass and the substrate**

as seen in the attached photo.

In this case, the clear colored glass tile allows the trapped moisture to show through as a different shade. This one failed due to its inconsistent appearance and had to be replaced - twice.

### **2. Pay attention to the tile backing**

The type of backing on the tile may react differently to the mortar you choose.

- Metallic or painted backings can react with cement-based thin set mortars in wet environments causing them to loosen the bond between the mortar and the glass tile.
- Some glass mosaic tiles are mesh-mounted using adhesives that are water-sensitive. These adhesives can break down when wet causing a bond failure.

### **3. Never use mastic**

We have to say it: Don't ever use mastic.