

# Tesoro – Glass Mosaic Product Information

## Reflections Series

These instructions are meant to be a general guide for installations under normal conditions. Please read and understand this information before installation. If you have no specific experience with the installation of glass products, obtain professional advice or use their services for the installation.

Reflections glass mosaics are made of transparent glass, face-mounted with a clear poly film. These products are made using a handmade cast process. A certain amount of variation in color, shade, texture, size and tone is a desired feature and is inherent to this production process – some bubbles, veins, wrinkles and other small irregularities in/on many of the pieces is typical, consistent and intended with this production process.

## Applications

The Reflections glass products can be used for interior and exterior wall applications in wet or dry locations. Correctly installed, these glass mosaics can be used in pools, underwater, and/or in continuously wet areas such as water-fountains. All submerged, underwater installations must be made by experts which may require specific installation procedures and setting materials.

Cement backer units and/or concrete masonry block are acceptable substrates. Gypsum wallboard can be used for interior walls only. DO not install these products with membranes between the glass and the setting substrate! When installed close to hot areas (i.e. cook-tops, fireplaces and similar applications), keep the glass at a minimum safety distance of at least 6” from any source of heat or heated surface.

## Attention

Planning is needed for the use of any glass tile products when the surface will be subject to wide temperature changes within short time frames. Example: outside walls where a hot summer day can suddenly be hit by a rain shower causing thin glass mosaic to cool down immediately shrinking faster than the thick concrete backing, causing the glass mosaic to either crack or detach.

## Installation Instructions

Verify product characteristics *before* installation for any visible defect and/or other aspects of the product that may be questionable such as, but not limited to: shade variations, chipped edges, scratched surfaces, variations between ordered and supplied products.

*Installation where a claim to be defective is not caught or the material is not corresponding to customer's expectations constitutes acceptance of the product "as is" and no claims will be accepted after installation.*

Never use products from different lots. Every box is labeled showing production lot #s. Never mix these as part of the same installation.

It is strongly recommended that you *do not* use the following setting materials:

- Organic Adhesives (mastic) may become yellow and their bonding strength is generally weaker.
- Epoxy is not flexible enough. It may degrade and change color in sunlight.
- Do not use setting materials designed for the installation of ceramic tile.

For setting the glass mosaic sheets, it is recommended that you use only a pure-white thinset mortar, modified with polymer or latex, compliant with ANSI 118.4 and recommended for glass tile installation by the setting material manufacturer. A 3/16” square-notched trowel should be used, and all trowel ridges in the thinset must be smoothed out using the flat edge of the trowel before setting the tile. In some cases, each sheet must be back-buttered with a thin, continuous layer of the mortar so that no mortar streaks or ridges show through the transparent glass. Do not apply more setting material than absolutely necessary because when it dries, the shrinkage may crack the glass.

Install small areas of approximately 8-10 square feet, installing the glass immediately (within 5 minutes maximum after spreading the mortar), otherwise the bonding capacity of the mortar will be reduced.

Press each sheet by hand into the installation material and then tap the sheets and their edges with a rubber mallet and/or wooden block evenly into the mortar bed. The thinset mortar *must* cover the back of each glass pieces pushing up slightly into the joints. Air bubbles not pushed out will be visible through the transparent glass and the bonding capacity of the mortar will be reduced.

If you want to adjust the positioning of one or more glass pieces, use a sharp cutter to cut the clear film around the piece(s) in order to move as desired. Adjustments must be done immediately after or during the installation process before the setting material has dried.

Flexible caulk *must* be used where the glass encounters other hard materials such as, but not limited to: walls, corners, cabinets, and any other materials inserted into the glass surface (such as bathroom fixtures, etc.).

## Removal of the Clear Poly Film

The clear plastic film must be removed after mortar has fully set, which takes approximately 48 hours as the glass does not allow the setting material moisture to be absorbed. Pull the film off and away keeping it as close to being parallel to the tiled surfaced as possible. Remove any excess mortar from the joints.

## Grouting

When selecting the grout color, consider that the glass mosaic is made of transparent glass. The color of the grouting materials will be visible and reflecting at the edges of each which may change the overall color appearance, so make the grout color selection accordingly.

Use only non-sanded grout modified with polymer or latex, compliant with ANSI 118.4 and recommended for glass tile installation by the grout material manufacturer. Sanded grout may scratch the surface of the glass and there is no way to remove such scratches. If exterior applications require sanded grout, we recommend the extremely careful (feather-light) use of a soft rubber float to minimize the possibility of scratching the glass surface.

After installation it is recommended the tile be cleaned with grout cleaners that are generally accepted; for example: Aqua Mix Grout Haze Clean Up or TEC Banish Grout Haze Remover. Wipe to remove any heavy grout residue using a clean white nylon scrub pad or clean piece of cheesecloth. Finish with a clean grout sponge or damp terrycloth towel. Always use clean cloths, white if possible, as some fabric dyes may color the grout joint.

Some grout cleaners may change the grout color. If in doubt, test it first in an inconspicuous area.

## Drilling and Cutting

Always wear eye protection when cutting, drilling or grinding glass tile! Always wear hand or finger protection!

### Cutting Hints

Cut Reflections glass mosaics with a wet saw having a new diamond rimmed blade designed to cut glass. Blades designed for cutting ceramic tile should not be used as they make coarse cuts and cause unwanted chips and irregularities along the glass.

Small mosaics are difficult to hold in place. Place a larger piece of ceramic tile, stone or marble over the mosaic sheets to the left and the right of the cut to make cutting small mosaics less difficult.

To maintain consistent smooth cuts, redress the diamond blade with an abrasive dressing stone frequently to expose a fresh layer of diamonds on the blade rim or replace the diamond wheel before the cuts become coarse.

### Drilling Holes

If possible, drill holes before installing the tile and drill from both sides; this will help reduce chips and cracks. A new water-cooled diamond tipped core bit with a low speed drill (200 to 300 rpm) will give the best results. Best results are obtained by continuously spraying an oil/water mix on the drill bit and the glass surface that is being drilled. If holes are drilled for anchoring bolts, keep the hole at least 1/8" larger than needed to avoid stress transfer from the anchor and/or bolt to the tile, otherwise this stress may cause cracks and/or chips.

### Angles

First drill a hole where the cuts will meet and form an angle before making the two cuts. In most cases, this will help to avoid cracks at the inside corner of the angle.

Cutting will leave dangerously sharp edges and corners so they should be smoothed and dulled with a belt sander using silicone carbide belts, or with a diamond hand pad or a tile blade dressing stone.

## Drying Time

Glass tiles are non absorbing. The humidity in the setting materials cannot migrate into the glass; it must evaporate slowly through the joints. Thus, the setting materials need much longer to cure. Allow the thinset mortar to dry completely, at least 36-48 hours, before grouting or otherwise interfering with the fresh installation.

## Care and Maintenance

Normally it is sufficient to wipe the glass surface with a damp sponge or cloth. When stronger cleaning is needed, any standard non-abrasive floor, wall or glass cleaner can be applied with a non-abrasive sponge or soft cloth.

Residues from hard water can be removed with specific cleaners (such as vinegar-based products), however these cleaners may affect colored grouts and a test should be made first in an inconspicuous area.

Glass is fragile. Hitting the glass mosaics with a hard object may lead to breakage and to sharp cutting edges than can cause injuries. Damaged mosaic/chipped tiles must be replaced immediately.

Always buy a little more product than actually needed and set them aside for repairs in the future. It is practically impossible that you will find matching colors/shades a few years down the road. A few dollars spent for the additional material set aside will save you lots of dollars otherwise needed for redoing the whole installation or form living with a patched-looking installation!