

INSTALLATION GUIDE – POOLS AND WATER FEATURES

INSPECT

- Inspect shipment prior to installation to ensure product matches the specification.
- Installation constitutes acceptance.
- Verify sizing and dye lot shading are consistent and acceptable throughout the shipment.
- Control samples are recommended to aid in color matching if additional material is required. Without them, matching exact dye lots can prove difficult.
- We recommend a minimum 10% overage on all tile orders.

PROTECT

- Pool or water feature may need to be protected from direct sunlight, excessive heat, wind, precipitation and freezing during substrate preparation, installation and curing. – TCNA P-602

PREPARE

- Preparing a pool substrate to receive our tile includes critical, industry required steps which are outlined in **TCNA P-602**
- All surfaces to receive tile shall be sound, smooth, flat, clean and free of dust, oil, grease, paint, tar, wax, curing agents, primers, sealers, adhesive residue, release agents or any other deleterious substance or debris which may prevent or reduce adhesion to the substrate.
- The following cure times are industry specified minimums. However, several materials manufactures provide products that will impact (reduce) these requirements. Contact your setting materials manufacturer for comprehensive information.
 - a. Shotcrete cure time: 28 days
 - b. Mortar bed cure time: 7 days
 - c. Post Grout (before filling pool with water): 21 days
- **Waterproofing/Anti-fracture Membranes:** Waterproofing and Anti-fracture provisions are critical to the success of glass tile installation in pools. The acceptable systems available are continuously revised as new technologies become available. Contact our technical support department, or contact the department of your preferred materials manufacturer for current products and application procedures in submerged applications.



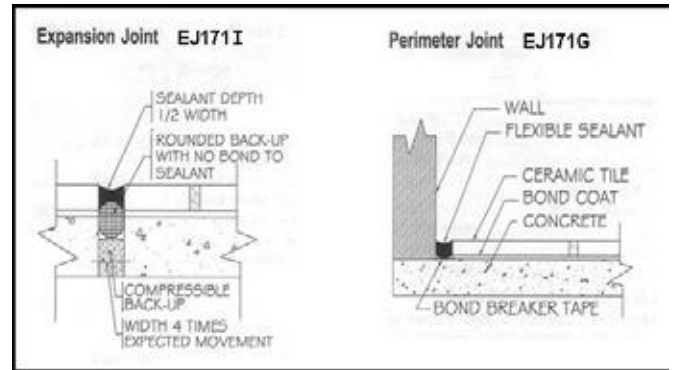
GARDEN STATE TILE

Together We Can Design For Life

This document contains supplemental guidelines for installing our products in pools & water features. Recognized industry associations, our technical support team, and technical support teams of material manufacturers should be consulted regarding current standards and proper use of their products in pools. These instructions are not intended to replace existing industry standards. Only experienced and professional tile installers should install our products in pools.

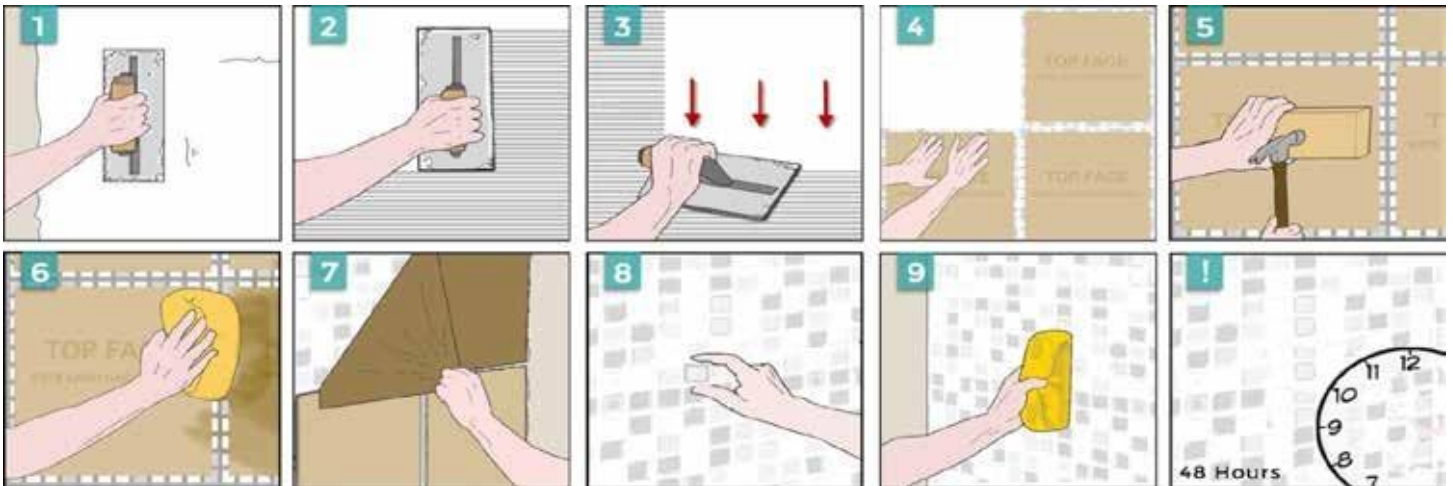
Movement/Expansion Joints: *Refer to TCNA - EJ171*

- A soft joint between tile installation and coping is **CRITICAL** to the success of glass tile installations in pools.
- A soft joint is required between any change of material within the tile installation (tile to tile, tile to metal, tile to coping)
- Additional movement provisions may be required based on the conditions of the project.



INSTALL

- Minimum 95% bond coverage (100% for translucent tile) required when installing glass tile in submerged environments.
- A 3/16" x 1/4" V-Notch trowel is recommended for installation. *Check periodically during installation to verify proper coverage.*
- Garden State Tile glass tiles are 'top-face' mounted with water-soluble glue. Our tile is directional, requiring each sheet to be laid in the correct orientation. All sheets are printed with the words "TOP FACE" and/or "Mount This Side Out" indicating 2 things:
 - a. The paper-face must be facing out. **DO NOT install the tile with paper embedded into the thin-set.**
 - b. Sheets must be installed with "TOP FACE" and/or "Mount This Side Out" in same orientation for proper alignment of directional blends.



Step By Step Mosaic Installation:

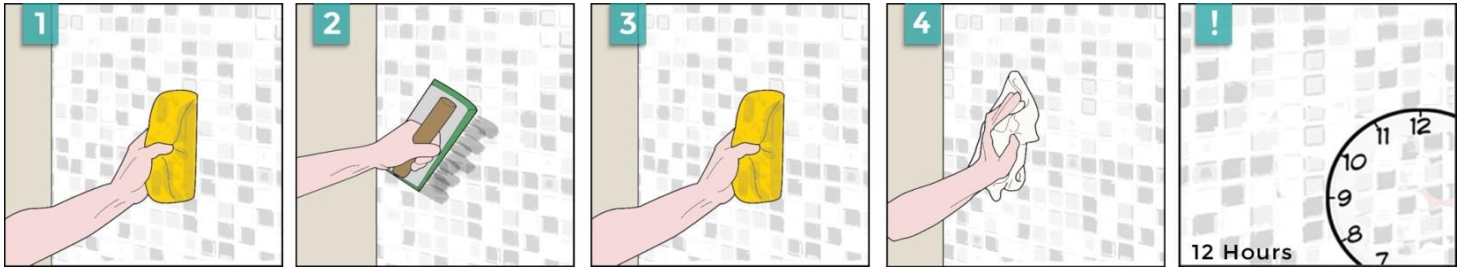
1. Work in areas of 6 – 10 SF. Key in thin-set with flat edge of trowel.
2. Use correctly sized v-notch trowel to achieve uniform thickness.
3. Lightly knock down the tops of combed thin-set with flat edge of trowel.
4. Gently seat tile into the thin-set, paying attention to sheet lines.
5. Use a beating block to achieve uniform flatness and full bond.
6. Wait 10 -15 minutes before lightly wetting the paper with water and a sponge. Do not use excessive water.
7. Begin peeling paper off after 5 minutes.
8. Adjust tiles as required to hide sheet lines.
9. Clean excess setting materials from tile surface with a damp sponge.
10. Garden State Tile recommends a 48 hour cure time before grouting.

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Step By Step Grouting: *Normal grouting procedures apply. Some of our mosaics have a textured surface. Follow these tips for the best results:*

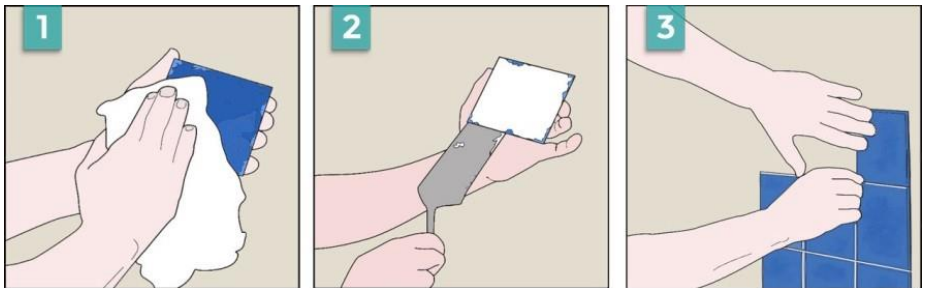


1. Pre-wash tile with damp sponge to remove 100% of glue residue before grouting.
2. Apply grout with a rubber float as normal, making sure joints are free of voids.
3. Use a damp sponge to remove excess grout, leaving only a slight haze residue.
4. Wait 30-40 minutes before polishing off haze residue with a dry terry cloth. *Perform as work progresses while grout is fresh.*
5. Wait 12 hours before performing a 'final polish' to remove any residual haze with a dry terry cloth.
6. Allow grout to cure 7 days before aggressive cleaning.

Some textured products may benefit from a post-cure 'polish'. Use grout haze remover or diluted sulfamic solution to remove haze from nooks and crannies. Follow product manufacturer's instructions. Test small areafirst.

Step By Step Back Butter Method: *Required on un-mounted mosaics and tiles 2"x2" or larger to obtain 100% coverage.*

1. Clean back of tile.
2. Apply thin-set to 100% of back of tile.
3. Press tile into prepared thin-set bed.



START-UP

- € After final grout, allow installation to cure 21 days prior to filling the pool. (unless materials manufacturers approve otherwise)
- € Protect the installation during the cure time.
- € Test water chemistry at fill source (tap or hose bibb), and once the tank is full to verify water is non-corrosive.

RESOURCES

Waterproofing/Anti-fracture Membranes: Waterproofing and Anti-fracture provisions are critical to the success of glass tile installation in pools. The acceptable systems available are continuously revised as new technologies become available. Contact our technical support department, or contact the department of your preferred materials manufacturer for current products and application procedures in submerged applications.

Setting Materials:

Many Garden State Tile glass tiles are transparent/translucent. We recommend bright white thin-set. Consult the setting materials product data sheets for instructions specific to submerged applications. Mastics are unacceptable setting materials with Garden State Tile glass tile in pools.

We recommend the following installation products for submerged installations. The acceptable systems for glass tile installation are continuously revised as new technologies become available. While we are providing this basic list, it is the installer's responsibility to be knowledgeable about the most current recommended systems.

LATICRETE	Glass Tile Adhesive, 254 Platinum White
MAPEI	Adesilex P10 + Keraply Mortar Additive
BOSTIK	Glass Mate

Cutting Glass Tile:

- Use glass tile nippers with carbide cutting wheels.
- Use a wet saw with diamond blade for glass. OX-Blade 7, 10, Alpha Vetro 4,7,10, MK GL210
- To prevent rough edges, glass tiles must be cut slowly.

Drilling Holes: *(Drill tile before installation – drilling into pool shell will compromise waterproofing.)*

- Use a diamond core bit on a drill with low speed (250 to 300rpm).
- Mist the tile and drill bit during drilling to prevent glass from cracking.
- On horizontal surfaces make a circular dam out of plumbers putty to hold water around the bit.
- If tiles have not been installed, drilling from both sides will minimize chipping and cracking.
- Openings should be 1/8" larger than pool fittings (jets, lights, returns) to avoid stress transfer to the tile.

INDUSTRY GROUPS

(NTCA) National Tile Contractors Association
(TCNA) Tile Counsel of North America
(TTMAC) Terrazzo Tile and Marble Assoc. of Canada
(CTIOA) Ceramic Tile Institute of America, Glass Field Reports

www.tile-assn.com
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