Installation of Glass Mosaic Tile
POOL AND SPA APPLICATIONS

INSTALLATION OF PAPER-FACE MOUNTED, BACK-MOUNTED, CLEAR FILM-FACE MOUNTED GLASS MOSAICS GLASS MOSAICS (per ANSI A108.16):

GENERAL INFORMATION
Glass tiles are impervious to water and stains, highly resistant to chemical attack, resistant to fading and discoloration. Variations in color, shade and size are inherent in all fired glass products. The glass tiles should not be exposed to high abrasion, or extremely heavy impact. Bubbles, wrinkles and folds are consistent with cast glass. Please open and inspect each box of glass tile upon delivery. Buyer is responsible for inspection and acceptance of the materials prior to installation.

The following recommendations comply with ANSI standards. Although ANSI standards allow for the installation of back-mounted mosaics with latex thin-set mortars, however we recommend LATAPOXY® 300 Adhesive be used to install mesh-mounted mosaic tile.

SUBSTRATE REQUIREMENTS
Pool tanks must be structurally sound to support a glass tile installation. Tanks must be constructed of reinforced concrete. There should be no defects in the tank wall or surface. Make sure the substrate is clean and free of any dirt, oil, grease, paint, sealers, form release agents, or curing compounds. Clean the surface by pressure washing before installation of the glass mosaic tile. Pool tank must be made watertight through the use of cementitious waterproofing.

INSTALLATION MATERIALS
Due to the translucent nature of glass tile, the color of the thin-set will affect the appearance of the tile; we recommend the use of white thin-set. Use LATAPOXY 300 Adhesive or LATAPOXY SP-100 (for applications where a colored epoxy adhesive is desired) as the setting mortar. If using a colored thin-set test color prior to installation.

All submerged applications (pool and spa) must be cured a minimum of 21 days prior to submersion or heavy water use, unless otherwise recommended by the thin-set and grout manufacturer.

EXPANSION JOINTS
Expansion joints must be installed in accord with Tile Council of North America (TCNA) detail EJ-171. The expansion joints need to be brought through to the tile surface and treated with a flexible sealant. Use LATICRETE Latasil™ to treat the joints. Expansion joint requirements will vary due to application types and locations. Expansion joints are recommended between the tile and all restraining abutments at all corners and directly over any joints in the concrete tank. An architect and engineer should be consulted when specifying expansion joint placement, construction and materials.

INSTALLATION PROCEDURE
Key the mortar into the substrate using the flat side of a trowel to initiate a bond coat. Using the appropriate sized small square notch trowel, add more adhesive and notch the
mortar in a horizontal, straight pattern. Using the flat side of the trowel, flatten the notches to attain a smooth, consistent setting bed. Place the glass mosaic sheets onto the fresh mortar and bring all surfaces to a true plane at the proper position. Use a flat wood block or rubber grout float to beat the face of the tiles and firmly embed the tiles into the mortar. A minimum of 95% coverage, of mortar to tile, should be achieved after the beat in.

Apply the remaining sheets and make sure that the vertical and horizontal grout joints line up and a consistent pattern is maintained. For paper-face mounted glass mosaic tiles, the paper should be removed as soon as the tiles have set firm but the adhesive mortar is still pliable enough to make adjustments and repair pinholes or voids in the joint(s). Use a sponge dampened with clean water to moisten the paper sheets covering the mosaics. Two or more applications of water may be needed to safely remove the paper facing from the tile. When the paper is properly saturated, peel the paper from the face of the tile being careful not to pull tile away from the mortar. Inspect the grout joints for pinholes and voids and fix as necessary.

Within one hour of initial set, clean any residual glue and paper from the surface using a light, damp sponge and buff with a dry cloth. Follow with an application of the same mortar used to set the glass mosaics and grout the areas between each sheet as necessary. **Transparent and translucent glass tiles can show shadowing (ghosting) if the glass tile manufacturer's installation instructions are not followed.**

**NOTE:** DO NOT APPLY EXCESSIVE MORTAR ON THE SURFACE TO BE COVERED WITH MOSAICS. Too much mortar will squeeze up through the joints and produce an uneven finished surface. Excessive thickness of mortar can also slow the hardening of the mortar which means that the mortar will remain soft for an extended period and delay the removal of the paper mounting.

For back-mounted and clear film face-mounted glass mosaic tile, allow the setting material to harden for 24 hours minimum (vertical installation) and 48 hours minimum (horizontal installation) prior to cleaning tile face and then grouting. Use warm water and a white scrub pad (or stiff nylon brush) to remove any residual setting material, glue or paper from the tile's face prior to grouting. Allow the installation to air dry before grouting.

**GROUTING PROCEDURE**

Grout using LATICRETE® PermaColor™ Grout; LATICRETE 1500 Sanded Grout gauged with LATICRETE 1776 Grout Enhancer; or, LATICRETE 1600 Unsanded Grout gauged with LATICRETE 1776 Grout Enhancer; LATICRETE SpectraLOCK® PRO Premium Grout*; or, LATICRETE SpectraLOCK PRO Grout, LATICRETE SpectraLOCK PRO Premium Grout or LATICRETE SpectraLOCK PRO Grout.

It is recommended that a test area be performed to determine suitability of grout with glass tile. Sand may scratch the surface of the tile. **NOTE:** Exterior installations in hot and dry conditions can cause a rapid drying of the setting mortar. To obtain longer working time it may be necessary to dampen the substrate with a damp sponge immediately before the mortar is applied. Cold weather installations can slow the curing
of the setting mortar. A longer waiting time may be required for the mortar to cure before the face-mounting (if present) can be removed or the installation can be grouted.

CUTTING AND DRILLING
Eye protection should always be worn when cutting or drilling glass tiles.
We highly recommend that cuts be made with a wet saw and a NEW diamond rimmed blade designed SPECIFICALLY to cut glass (we recommend the MK-215GL). Slowly push the tile into the blade. Pushing too hard or cutting too fast may cause the glass to chip. Ceramic tile blades are NOT recommended; their cuts are too coarse and tend to chip tile surface of the glass. To finish the edge, smooth with a diamond hand pad, tile blade or dressing stone.

Drilling holes through glass tile can be accomplished with a diamond core bit using a drill with low speed (250 to 300 rpm). Continually misting the tile and drill bit during cutting is imperative to prevent glass from cracking. If partitions or fixtures are to be attached with anchoring bolts, drill hole 1/8" larger to avoid stress transfer to the tile. If tiles have not been installed, drilling from both sides will minimize chipping and cracking.

TILE CARE AND MAINTENANCE:
Clean the surface of glass tile with mild soap and warm water. Wipe surface completely dry with a clean, lint free soft cloth. Excessively dirty glass tile, use a non-abrasive cleaning compound recommended for glass or tile (such as Windex, ammonia and water, vinegar and water). Rinse according to the manufacturer’s instruction.