



INSTALLATION SPECIFICATIONS FOR GLASS TILES IN SWIMMING POOLS

Part 1- General

Summary of Specification:

This document contains the methodology for the installation of glass tiles for service requirements for both interior and exterior over properly prepared structures such as cast-in-place concrete, Gunitite or Shotcrete in Swimming Pools, Fountains and Water Basins.

Related Sections:

- A. Section 09300-Tile
- B. Section 03600-Grout

Part 2-Products

Submittals:

- A. Submit under provisions of Section 01300.
- B. Submit specified tiles as manufactured by (mfr) including product data indicating type and color, or color pattern, submit two (2) 12 in. by 12 in. panels. All tiles shall be as supplied by (company, telephone, fax, e-mail & internet http).
- C. Submit materials for setting & grouting as manufactured by SGM, Inc. Pompano Beach, FL USA. (800) 641-9247 or (954) 943-2288, Fax (954) 943-2402, sales@sgm.cc, Internet: www.sgm.cc. Materials for setting and grouting shall be as follows: Flex Set flexible latex-Portland cement mortar to install and SGM Security Polymer Grout (sanded) or (unsanded) grout. Colors to be selected from SGM grout color selector. Water proofing and anti-fracture membrane shall be SGM Southcrete 1132 liquid applied membrane.

Quality Assurance:

- A. Tile and Dimension Stone Manufacturers: Minimum five (5) years documented experience producing respective products specified in this section.
- B. Setting Materials and Grout Materials Manufacturer: with minimum ten (10) years documented experience producing respective products specified in this section.
- C. Installer: Minimum five (5) years documented experience installing respective products specified in this section.
- D. Mock-up: Construct mock-up panel using materials specified for final work. Obtain Architect's or Owners Representative acceptance of visual qualities of mock-up.

Movement/ Expansion Joints:

- A. Perimeter and field movement joints within a tile installation are essential and required. Form movement joints in accordance with TCNA EJ171.
- B. Provide movement joints in tile substrate as specified by architect or designer indicated on drawings showing the specific locations and details.
- C. Install movement joints per ASTM C1193 Standard Guide for Use of Joint Sealants. For glass tile field, movement joints are required every 8' to 12' in each direction in the finish layer. A



flexible sealant, recommended for submerged applications is required between the tile and any restraining abutments such as decking, coping, all inside corners and directly over any joints in the concrete tank.

Part 3-Excution:

Surface Preparation:

- A. Verification of conditions by installer prior to work commencing, advising General Contractor, Architect or Owners Representative of any pre-existing condition of substrate that requires modification before installation.
- B. Concrete pool shells are rarely within the desired tolerances for the installation of waterproof membranes and glass tiles. Proper preparation and cleaning of all surfaces to be tiled is imperative for a successful installation. Inspect substrate to ensure that it is free of weepers, re-bond, release agents or curing compounds and scarify if necessary to obtain desired results. Special attention should be given to pipe penetrations and light niches to ensure that all voids are tightly packed with Dynamite pool patch. Scratch or Float coat, level substrate to within desired tolerance using SGM Mortar Mix/ Sand topping gauged with Southcrete 25 High Acrylic Admix. Dampen highly porous concrete with clean potable water leaving no puddles or standing water.

Installation of Waterproof / Anti-Fracture Membrane:

- A. Waterproofing membrane shall be installed all wet areas.
- B. Anti-fracture membrane shall be installed over any pre-existing hairline cracks in substrate prior to commencement of tile work.

Installation of Tile:

- A. Glass Tile, when used –ANSI 137.2. Consult tile manufacturer for environmental exposure classification recommendations. Not all glass tiles are suitable.
- B. Follow the appropriate TCNA method 601TB or 601MB for installation.
- C. Mix GMT (Glass Mosaic Tile) Thin Set Latex-Portland cement mortar with cool, clean potable water.
- D. Apply the mix liberally with the flat side of trowel to substrate. Use sufficient pressure to work mortar in good contact. Then comb with notched edge of trowel to leave uniform edges. A V notched trowel suitable for sufficient coverage of mortar is recommended. Apply to back side of each sheet of tile or individual tile with flat side of trowel prior to placement of sheet to combed material. Place tile while surface is wet and tacky. Spread only as much mortar as can be covered before surface dries. Place tiles and beat lightly before initial set takes place, to fully imbed in the mortar. Mortar that has formed skin should be re-troweled before applying tile. Unless otherwise indicated, install tile in grid pattern plumb and level.
- E. Face-mounted tile assemblies may have paper or other suitable material applied to the face of each tile, usually with water, remove after installation, but prior to grouting.



Grouting:

- A. Mix Security Polymer Grout color as specified (sanded or un-sanded) gauged with cool, clean, potable water.
- B. After completion of grouting leaving no voids, clean tile surfaces before grout hardens. Acid cleaning of grout is prohibited. The day after grout has been placed, remove grout haze utilizing a detergent solution.

Cure Time

- A. Proper cure times are as follows: Concrete shell (28 days), Waterproofing (2 days), Thin-set & grout (14 days). Fill pool at a flow rate of 1" per hour. Always test fill water before filling pool and adjust as follows:
http://www.sgm.cc/html_Pool/Contractors/startup-waterchemistry.html

Protection:

- A. Protect installed tile from other trades to prevent staining, damage and ware.

Technical Assistance, contact technical services representative toll-free (800) 641-9247 or e-mail ts@sgm.cc.

End of Section