

GLASS MOSAIC TILE SOLUTIONS REFERENCE GUIDE

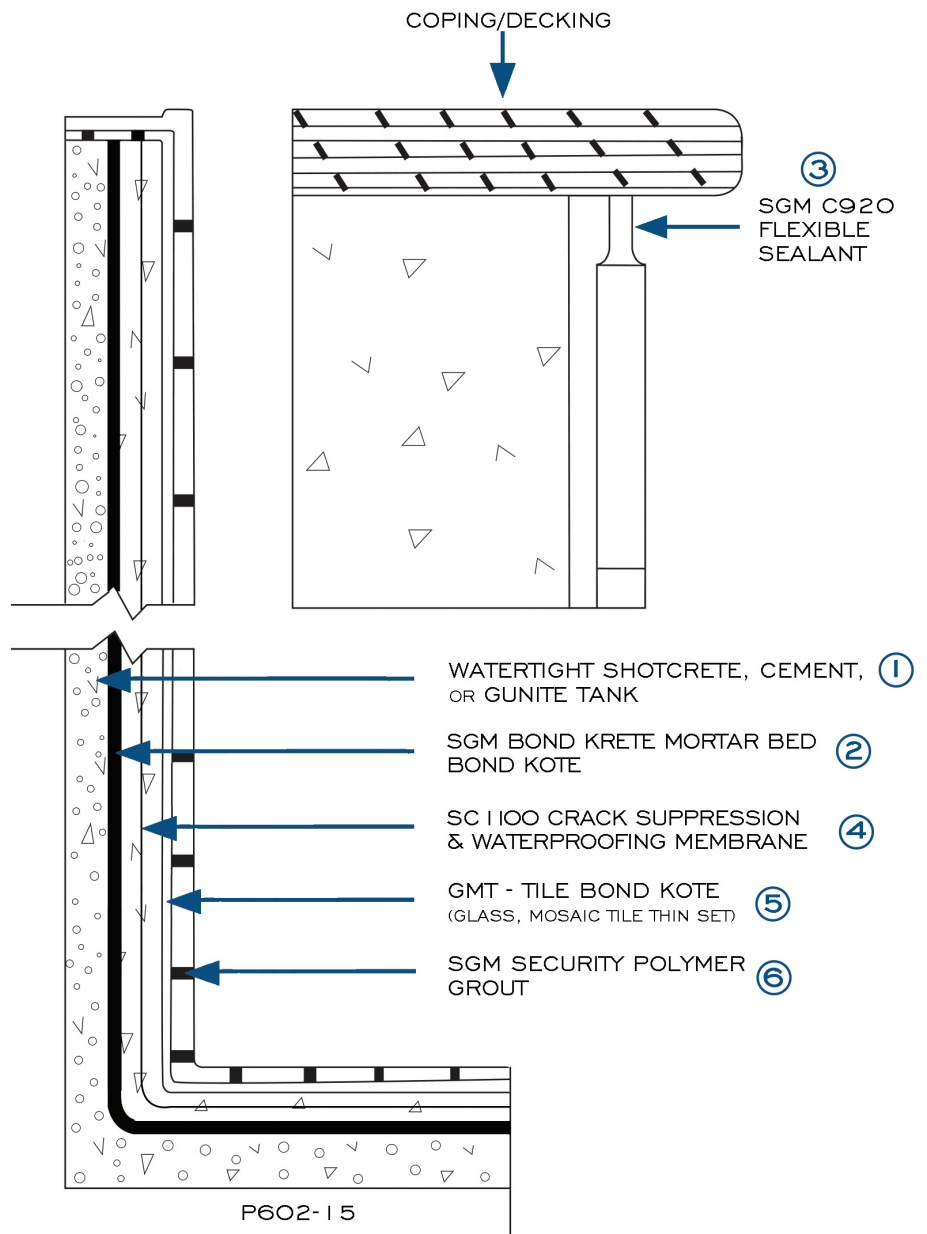


This information is provided as a general guideline for the installation of Artistry in Mosaics Inc. sheet mounted glass mosaics in interior and exterior dry and wet applications over Watertight Concrete, Shotcrete, or Gunite Tanks.

Cross reference the diagram to the right of the list of recommended options below for each numbered layer of the substrate & tile assembly. For further independent testing results and specification please visit www.artistryinmosaics.com.

RECOMMENDED PRODUCTS

- ② SGM BOND KRETE MORTAR BED BOND KOTE
- ③ SGM C920 FLEXIBLE SEALANT
- ④ SC1100 CRACK SUPPRESSION & WATERPROOF MEMBRANE
- ⑤ GMT - TILE BOND KOTE (GLASS, MOSAIC TILE THIN SET)
- ⑥ SGM SECURITY POLYMER GROUT



Note: Our material is tested and certified by independent laboratories. All data is given in good faith, however, we reserve the right to change products and specifications without notice. SGM advises interested parties to satisfy themselves as to the accuracy of any data and seek certification if appropriate.

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WATERTIGHT CONCRETE, SHOTCRETE, GUNITE - All Watertight Concrete, Shotcrete and Gunite Shells or Tanks should be 28 days cured and shall be engineered and constructed to be structurally sound. It is the responsibility of concrete, shotcrete or gunite contractor to ensure that the pool or water features shell, vessel or tank are watertight and any existing conditions are corrected.

SURFACE PREPARATION - Ensure that all areas to be tiled are clean and free of any moisture, wax, oil, paint particles, curing agents or foreign matter. Remove any liquid curing agents or concrete sealers by mechanical abrasion, sand blasting, water-blasting or similar, followed by a clear water wash. When installing tile in the thin bed method, all substrates must meet 1/8" in 10' and 1/16" in 1' finish tolerance. Use SGM Level Kote Mortar Mix to screed, plumb & true walls and floors. **Note:** When used to install tiles in submerged applications (pools, spas, water features) allow mortar to adequately cure. Setting may vary according to atmospheric conditions. Cure cement mortar beds a minimum of seven days prior to application of tile or bonded waterproof membrane.

MOVEMENT JOINTS - Install movement provisions to the current addition of the "TCNA Handbook for Ceramic, Glass & Stone Installation" method EJ171. Use SGM C920 Flexible Sealant between the tile and all retraining abutments (e.g. the decking /coping), at all inside corners and directly over any joints in the concrete tank. For glass tile, in-field movement joints are required in tile-work on 8' to 12' centers. When glass tile is used, adhere to more frequent placement recommendations within the ranges listed in EJ171. A 1/4" gap shall be left around vertical abutments to allow for structural movement and filled with SGM C920 Flexible sealant. **Note:** It is the responsibility of the architect and project engineer to determine the location of the movement joints.

INSTALLATION OF CRACK SUPPRESSION AND WATERPROOF MEMBRANES - Install SGM SC 1100 in all areas where crack suppression and waterproofing is required before tile is installed. Follow SGM SC 1100 installation instructions on mixing, application and curing requirements. Cure time may vary according to atmospheric conditions. Lower temperatures and high humidity can delay the curing of primary waterproofing and may require up to seven days to completely dry. SGM SC 1100 is ready for tiling once properly cured, approximately 24 hrs. under ideal conditions.

APPLICATION - Detailed installation procedures may be found in TCNA handbook and ANSI 108.5. All materials and effected areas should remain above 50° F (10°C) or below 100°F (38°C) 24 hrs. prior and 72 hrs. after placement. Apply mixed GMT thin-set mortar liberally with the flat side of trowel, using sufficient pressure to key into substrate. Next apply additional thin-set mortar with the notched edge of trowel leaving enough mortar for complete coverage to the back of tile. Place tile only while surface is wet and tacky, spread mortar over an area no greater than can be covered with tile before the thin-set mortar skins over. Set sheets lightly on the thin-set mortar bed. Bring all surfaces to a true plane at the proper position or elevation. Use a beating block to embed the sheets of tile fully into the thin-set mortar to achieve a minimum of 95% contact. For translucent tile apply mixed GMT thin-set mortar liberally with the flat side of trowel, using sufficient pressure to key into substrate. Next apply additional thin-set mortar with the notched edge of trowel to achieve uniform thickness. Lightly knock down the tops of the combed thin-set ridges with the flat edge of the trowel until smooth. Use a beating block to achieve uniform flatness and 100% coverage.

Thin-set mortar that has formed a skin should be re-troweled before applying tile. Some irregular tiles may require back buttering. During the setting of tile, it is recommended to periodically remove a tile and check to see that sufficient transfer of mortar is being attained. Industry standards require a minimum of 3/32" (2 mm) mortar thickness after beat in. Do not adjust tiles after they have been set more than 10 to 15 minutes. Note: It is suggested that a mock-up for the evaluation of surface preparation techniques and application be done by applying 3-4 sheets of tiles and bonding mortar from the actual installation. These tiles should be left to cure for 3-7 days and then removed to determine if an adequate bond has been obtained before commencement of the installation. Allow a minimum cure time of 24 hrs. for vertical surfaces and 48 hours for horizontal surfaces prior to grouting. **Note:** Pool, Spa or Fountain may need to be protected from direct sunlight, excessive heat, wind and precipitation and freezing during substrate preparation, installation and curing.

GROUTING - Cleaning prior to grouting, use warm water, a medium abrasive nylon scrub pad, stiff nylon scrub brush or thin-set removal tool to eliminate any residual setting materials, glue or paper from the tiles face and grout joints. Use SGM Security Polymer Grout to complete the installation. Proper curing is necessary for grout to achieve maximum strength. Allow tile assembly to cure for 7-14 days before exposure to water immersion.

POOL START-UP AND PROPER WATER CHEMISTRY - Pool water chemistry and balance will impact the appearance, performance and lifespan of the tile assembly. Maintain water chemistry using the Langelier saturation index (LSI) maintain between 0.0 and +0.3 for optimal conditions.

