

SECTION 09300

CERAMIC TILE

1.1 GENERAL

- A. ANSI Tile Standards: Comply with ANSI A13.1 Standard Specification for Ceramic Tile and ANSI 108 series of tile installation standards included under "American National Standard Specification for the Installation of Ceramic Tile".
- B. TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation"; comply with TCA installation methods indicated.
- C. Submittals: With manufacturer's product data and installation instructions for tile work, submit samples of each type, color, and texture of tile.
 - 1. Provide manufacturer's Master Grade Certificate.

1.2 PRODUCTS

- A. Colors, Textures, and Patterns: For tile, grout, and other products requiring selection of colors, surface textures, patterns and other appearance characteristics, comply with the following requirements:
 - 1. Provide selections made by Architect from manufacturer's full range of standard colors, textures, and patterns for type of products indicated.
- B. Sizes and Thicknesses: As indicated or, if not indicated, as selected by Architect from manufacturer's standard sizes and thickness. Interior tile units shall be 8" x 8". Interior wall tile shall be glazed interior tile (G.I.T.). Interior floor tile units shall be 12" x 12" units.
- C. Tile Grade: "Standard Grade" unless otherwise indicated.
- D. Interior Floor Tile: 12" x 12" I COLORI glazed ceramic floor tile with abrasive ADA slip-resistant surface, thickness 5/16", manufactured by Marazzi, USA. Provide sanitary cove base 6" x 8", required trim shapes. Three tile colors will be selected.
- E. Interior Wall Tile: 8" x 8" glazed ceramic tile units. Provide required trim shapes. Three tile colors will be selected.
- F. Unglazed Ceramic Mosaic Tile (C.M.T.): Factory mounted flat 2" x 2" tile and as follows:
 - 1. Composition: Natural clay with abrasive admixture.
 - 2. Face: Field design with borders, four tile colors.
 - 3. Cove base units with cushion edge.
 - 4. Tile Colors shall be selected from full line of tile colors including dark/bright colors.
- G. Trim Shapes: Same material, size, color and texture as field tile.
- H. Marble Thresholds: Group "A"; ASTM C 503, for exterior use with minimum hardness of 10.0 per ASTM C 241; white with honed finish unless otherwise indicated.
- I. Setting Materials: Provide setting materials as follows:
 - 1. Portland Cement Mortar: Materials complying with ANSI A 108.1 and as follows:
 - a. Latex Additive: Manufacturer's Standard
 - 2. Dry-set Portland Cement Mortar: ANSI A118.1

3. Latex Portland Cement Mortar: ANSI A118.4.
- J. Grouting Materials:
1. Latex Portland Cement Grout: ANSI A118.6 of the following composition:
 - a. Prepackaged dry grout mix composed of portland cement, graded aggregate, and the following dry polymer additive in the form of a reemulsifiable powder to which only water is added at job site.
 - (1) Dry Polymer Additive: Polyvinyl acetate or ethylene vinyl acetate.
 - b. Latex additive (water emulsion) replacing part or all of gauging water, added at job site with dry grout mixture, with type of latex and dry grout mix as follows:
 - (1) Latex Type: Manufacturer's Standard.
- K. Elastomeric Sealant: Manufacturer's standard curing, elastomeric sealants of base polymer indicated that comply with the requirements of Division 7 section "Joint Sealers", including ASTM C920 as referenced by Type, Grade, Class and Uses.
- L. Miscellaneous Materials: Provide the following materials:
1. One-Part Mildew Resistant Silicone Sealants: ASTM C 920, Type S, Grade NS, Class 25, Uses NT, G, A, and O (for use in joints in nontraffic areas).
 2. Temporary Protective Coating: As follows, formulated to protect the exposed surfaces of tile against adherence of mortar and grout, compatible with tile and mortar/grout products, and easily removable without damaging grout or tile.
 - a. Petroleum paraffin wax, fully refined, tasteless, odorless, containing at least 0.5 percent oil, with a melting point of 120° F (49° C) to 140° F (60° C) per ASTM D 87.
 - b. Grout release in form of manufacturer's standard proprietary liquid coating that is specially formulated and recommended for use as a temporary protective coating for tile.
- M. Cement Backer Board: Equal to 1/2" "Wonderboard" backerboard.

1.3 INSTALLATION

- A. Do not start tile work until roughing in for plumbing, heating, ventilating, air conditioning, and electrical work has been completed. Floor surfaces to receive ceramic tile set in a mortar setting bed shall not vary by more than 1/4" in 10' from the required plane or slope. Floor surfaces to receive thin set ceramic tile shall not vary by more than 1/8" in 10' for the required plane or slope. Wall surfaces receiving ceramic tile shall have square corners, be plumb and true, with variations not exceeding 1/8" in 8' from the required plane.
- B. Preparation of Structural Floor Slabs: Prepare slab in accordance with ANSI requirements. Prepare existing tile floor by cleaning and grinding to create an acceptable surface to install thin-set tile over tile. Before tile is applied the existing tiled concrete floor shall be tested for levelness or uniformity of slope by using straightedges. Area where the floor does not meet the required tolerances shall be filled and levelled in accordance with ANSI A108.5

- C. Floor and Wall Tile in Dry-Set Mortar or Latex-Portland Cement Mortar: Install floor and wall tile in accordance with ANSI A108.5 where slab is not recessed and tile is scheduled. Masonry walls to receive a levelling coat of mortar prior to the application of wall tile.
- D. Floor tile in conventional set grout bed in all areas where the new concrete floor slab is recessed.
- E. Joints: Make parallel, plumb, level, and in alignment. Make end joints in broken-joint work, as far as practicable, on center lines of adjoining tiles. Set square tiles with straight joints, and set oblong tiles with broken joints, except in special arrangements and design, as indicated or specified.
- F. Joint Width: Make joints uniform in width and space to accommodate tile in given spaces with a minimum of cutting, except maintain standard mounting widths between units abutting sheets of mounted ceramic mosaic tile. Make joint widths as follows:
 - 1. Mounted Tile: As determined by the mounted tile spacing.
 - 2. Unmounted Glazed Wall Tile: As determined by spacing lugs.
 - 3. Trim Units and Accessories: Match that of adjoining tile units.
- G. Grouting and Pointing: Dry-set grout may be applied over dry tile without wetting of tile. Factory premixed colored epoxy grouts may be used. Color shall be as indicated.
- H. Grout glazed wall tile in accordance with ANSI A108.1 or A108.5.
- I. Grout ceramic mosaic tile in accordance with ANSI A108.1.
- J. Expansion and Control Joints: Provide expansion and control joints in tile work in accordance with ANSI A108.1 or A108.5 and where indicated. Unless indicated otherwise, treat expansion and control joints as follows:

1.4 CURING AND CLEANING

- A. Curing: Cover floors with waterproof paper with joints lapped at least 4" and the laps tape-sealed or held down with planks or other weights. Allow to damp cure for at least 72 hours before permitting foot traffic on tiled floor. Cure in accordance with ANSI A108.1 or A108.5.
- B. Cleaning: Clean in accordance with ANSI A108.1 or A108.5 except acid cleaning of unglazed tile, when necessary, shall be done no sooner than 14 days after setting tile.
- C. Seal floor tile and tile joints in accordance with the manufacturer's requirements.

1.5 PROTECTION

- A. Meet the requirements of ANSI A108.1 or A108.5; cover finished tile floors with clean building paper before permitting foot traffic on them. Place board walkways on floors that are to be continuously used as passageways by workmen. Cover window stools and thresholds with boards. Protect tiled vertical outside corners (external angles) with board corner strips in areas used as passageways by workmen.

END OF SECTION