

Part 1 General

1.1 RELATED SECTIONS

- .1 Read and be governed by conditions of the contract and sections of Division 1.
- .2 Section 07 92 00 – Joint Sealers.

1.2 REFERENCES

- .1 American National Standards Institute (ANSI)/Ceramic Tile Institute (CTI)
 - .1 ANSI A108.1-99, Specification for the Installation of Ceramic Tile (Includes ANSI A108.1A-C, 108.4-.13, A118.1-.10, ANSI A136.1).
 - .2 ANSI A118.10, Specification for Load Bearing, Bonded, Waterproof Membranes for Thin-set Ceramic Tile and Dimension Stone Installation.
 - .3 CTI A118.3-92, Specification for Chemical Resistant, Water Cleanable Tile Setting and Grouting Epoxy and Water Cleanable Tile Setting Epoxy Adhesive (included in ANSI A108.1).
 - .4 CTI A118.4-92, Specification for Latex Cement Mortar (included in ANSI A108.1).
 - .5 CTI A118.6-92, Specification for Ceramic Tile Grouts (included in ANSI A108.1).
- .2 American Society for Testing and Materials International (ASTM)
 - .1 ASTM C144-11, Specification for Aggregate for Masonry Mortar.
 - .2 ASTM C207-06, Specification for Hydrated Lime for Masonry Purposes.
 - .3 ASTM C267-01, Standard Test Methods for Chemical Resistance of Mortars, Grouts and Monolithic Surfacing and Polymer Concretes.
 - .4 ASTM C847-10a, Specification for Metal Lath.
 - .5 ASTM C979/C979M-10, Specification for Pigments for Integrally Coloured Concrete.
 - .6 ASTM C1288-99, Standard specification for Discrete Non-Asbestos Fiber Cement Interior Substrate Sheets.
- .3 Canadian General Standards Board (CGSB)
 - .1 CGSB 71-GP-22M-78(AMEND.), Adhesive, Organic, for Installation of Ceramic Wall Tile.
 - .2 CAN/CGSB-75.1-M88, Tile, Ceramic.
 - .3 CAN/CGSB-25.20-95, Surface Sealer for Floors.
- .4 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-A3000-08, Cementitious Materials Compendium (Consists of A3001, A3002, A3003, A3004 and A3005).
- .5 South Coast Air Quality Management District (SCAQMD), California State
 - .1 SCAQMD Rule 1168-05, Adhesives and Sealants Applications.
- .6 Terrazzo Tile and Marble Association of Canada (TTMAC)
 - .1 Tile Specification Guide 09 30 00 2006/2007, Tile Installation Manual.
 - .2 Tile Maintenance Guide 2000.

1.3 SUBMITTALS

- .1 Provide product data:
 - .1 Include manufacturer's information on:
 - .1 Ceramic tile, marked to show each type, size, and shape required.
 - .2 Cementitious backer unit.
 - .3 Dry-set cement mortar and grout.
 - .4 Divider strip.
 - .5 Elastomeric membrane and bond coat.
 - .6 Reinforcing tape.
 - .7 Levelling compound.
 - .8 Latex cement mortar and grout.
 - .9 Commercial cement grout.
 - .10 Organic adhesive.
 - .11 Slip resistant tile.
 - .12 Waterproofing isolation membrane.
 - .13 Fasteners.
- .2 Provide samples:
 - .1 Floor tile: submit duplicate, 300 x 300 mm sample panels of each colour, texture, size, and pattern of tile.
 - .2 Trim shapes, bullnose cap and cove including bullnose cap and base pieces at internal and external corners of vertical surfaces, each type, colour, and size.
 - .3 Adhere tile samples to 11mm thick plywood and grout joints to represent project installation.

1.4 QUALITY ASSURANCE

- .1 Quality Assurance Submittals:
 - .1 Manufacturer's Instructions: manufacturer's installation instructions.
 - .2 Manufacturer's Field Reports: manufacturer's field reports specified.

1.5 AMBIENT CONDITIONS

- .1 Maintain air temperature and structural base temperature at ceramic tile installation area above 12 degrees C for 48 hours before, during, and 48 hours after, installation.
- .2 Do not install tiles at temperatures less than 15 degrees C or above 38 degrees C.
- .3 Do not apply epoxy mortar and grouts at temperatures below 15 degrees C or above 25 degrees C.

1.6 MAINTENANCE

- .1 Extra Materials:
 - .1 Provide minimum 2% of each type and colour of tile required for project for maintenance use. Store where directed.
 - .2 Maintenance material same production run as installed material.

Part 2 Products

2.1 FLOOR TILE

- .1 Ceramic tile: to CAN2-75.1, 300 x 600 x 5 mm size, square edges, slip resistant surface, regular pattern, colour as selected by the NCC Representative.
 - .1 Acceptable product: Olympia 'Evolution series 300 x 600mm.

2.2 TRIM SHAPES

- .1 Conform to applicable requirements of adjoining floor and wall tile.
- .2 Use slip resistant trim shapes for horizontal surfaces of showers, and drying areas.
- .3 Use trim shapes sizes conforming to size of adjoining field wall tile, unless specified otherwise.
- .4 Internal and External Corners: provide trim shapes as follows where indicated.
 - .1 Bullnose shapes for external corners including edges.
 - .2 Coved shapes for internal corners.
 - .3 Special shapes for:
 - .1 Base to floor internal corners to provide integral coved vertical and horizontal joint.
 - .2 Base to floor external corners to provide bullnose vertical edge with integral coved horizontal joint. Use as stop at bottom of openings having bullnose return to wall.
 - .3 Wall top edge internal corners to provide integral coved vertical joint with bullnose top edge.
 - .4 Wall top edge external corners to provide bullnose vertical and horizontal joint edge.
- .5 Provide cove and bullnose shapes where required to complete tile work.

2.3 MORTAR AND ADHESIVE MATERIALS

- .1 Mortar: One-component polymer modified thin-set mortar.
 - .1 Acceptable material: Flextile 52 Versatile Thin Set Mortar, or approved equal.
- .2 Water: potable and free of minerals which are detrimental to mortar and grout mixes.

2.4 GROUT

- .1 Floor grout: Portland cement based grout containing polymer additives to ANSI A118.6.
 - 1 Acceptable material: Flextile Polymer Modified Floor grout, or approved equal.
- .2 Wall grout: Portland cement based grout containing polymer additives to ANSI A118.6.
 - 1 Acceptable material: Flextile Polymer Modified Wall grout, or approved equal.
- .3 Grout preparation: to manufacturer's instructions.

2.5 ACCESSORIES

- .1 Transition Strips: purpose made metal extrusion; anodized aluminum type.

- .2 Reducer Strips: purpose made metal extrusion; anodized aluminum type; maximum slope of 1:2.
- .3 Prefabricated Movement Joints: purpose made, having a Shore A Hardness not less than 60 and elasticity of plus or minus 40 percent when used in accordance to TTMAC Detail 301EJ.
- .4 Sealant: in accordance with Section 07 92 00 - Joint Sealers.
- .5 Floor sealer and protective coating: to tile and grout manufacturers recommendations.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 WORKMANSHIP

- .1 Do tile work in accordance with TTMAC Tile Installation Manual 2006/2007, "Ceramic Tile", except where specified otherwise.
- .2 Apply tile to clean and sound surfaces.
- .3 Fit tile around corners, fitments, fixtures, drains and other built-in objects. Maintain uniform joint appearance. Cut edges smooth and even. Do not split tiles.
- .4 Maximum surface tolerance 1:800.
- .5 Make joints between tile uniform and approximately 1.5 mm wide, plumb, straight, true, even and flush with adjacent tile. Ensure sheet layout not visible after installation. Align patterns.
- .6 Lay out tiles so perimeter tiles are minimum 1/2 size.
- .7 Sound tiles after setting and replace hollow-sounding units to obtain full bond.
- .8 Make internal angles square, external angles bullnosed.
- .9 Use bullnose edged tiles at termination of wall tile panels, except where panel abuts projecting surface or differing plane.
- .10 Install divider strips at junction of tile flooring and dissimilar materials.
- .11 Allow minimum 24 hours after installation of tiles, before grouting.
- .12 Clean installed tile surfaces after installation and grouting cured.

3.3 FLOOR TILE

- .1 Install in accordance with TTMAC 311F-2006/2007 Detail A.

3.4 FLOOR SEALER AND PROTECTIVE COATING

- .1 Apply in accordance with manufacturer's instructions.

3.5 FIELD QUALITY CONTROL

- .1 Manufacturer's Field Services:
 - .1 Provide manufacturer's field services consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's instructions.

END OF SECTION