



## SECTION 09 TERRAZZO FLOORING

1. General - Terrazzo is installed using the thin set mortar method and it is to be installed by Hard Tile Contractors. It is important that the installation substrate be properly level, clean and free of any dust, sealers or waxes to allow proper adhesion to the substrate.
- 1-01 Include pre-cast, thermoset, polymer based 47-<sup>3</sup>/<sub>4</sub>" x 47-<sup>3</sup>/<sub>4</sub>" x 5/16" terrazzo tile, with integral high tension core, here in after called Terrazzo, indicated on the drawings and specified herein:
- 1-02 Related work described under other sections:
  - A. Finish and preparation of existing concrete or terrazzo floors to receive Terrazzo section 3-01
  - B. Finish and preparation of existing wood or resilient floors to receive Terrazzo section 3-01B.2.
- 1-03 Quality Assurance
  - A. Qualification of installers:
    1. For actual installation of Terrazzo use only experienced, Journeyman installers completely familiar with the installation methods of Terrazzo and the Tile Council of North America hereafter called TCNA.
    2. In acceptance or rejection of installed Terrazzo, no allowance will be made for lack of skill on the part of the installer.
  - B. Manufacturer's Recommendations: The installation recommendation of the manufacturer of Terrazzo, when approved by the architect, shall be the basis for acceptance or rejection of actual installation methods used in this work.
- 1-04 Submittals
  - A. Samples: Submit two sets of small samples of Terrazzo Tile for approval by contracting officer.
  - B. Maintenance materials: Furnish owner, without additional cost, a thirty day supply of Plaza, Acrylic Floor Finish, manufactured by Johnson's Wax. Materials are to be supplied in un-opened packages or containers and are to have complete use instructions.  
  
The Terrazzo installer shall instruct the owner of the building in the proper care and maintenance of the floor within one week of final approval and acceptance.
- 1-05 Product handling:
  - A. Store all Terrazzo and related installation material in a flat, clean, dry area where temperatures shall be maintained above 40°F with normal humidity until three days before installation begins.
  - B. Three days prior to installation the entire quantity of Terrazzo to be installed shall be moved into the installation area where a minimum temperature of 70°F has been maintained for two days prior to moving the Terrazzo into the installation area. The Terrazzo shall remain in the installation area for three days at a minimum temperature of 70° prior to installation.



- C. Use all means necessary to protect the Terrazzo before, during and after installation from damage or abuse from other trades. It is desirable when possible to make the Terrazzo installation the final item in the construction program.
- D. In the event of damage, immediately make all repairs and replacements necessary to the satisfaction and approval of the architect and at no additional cost to the owner.

2-01 **Product:** Pre-Cast, Thin set, Terrazzo Tile

- A. Terrazzo 47-<sup>3</sup>/<sub>4</sub>" x 47-<sup>3</sup>/<sub>4</sub>" x 5/16" Tile shall be (*Product Number and Color*) as manufactured by Surface Elements, Inc., 1132 Bradshaw Drive, Florence, Alabama. If the color for the project is different from the Standard Terrazzo Color Line, a 2' x 2' tile and two 6" x 6" approval samples of each custom color must be provided to the architect for approval before the order is released for production

**HARDNESS**

BARCOL-ASTM D-2583 Impressor-934-1 SHORE-ASTM D-2240

Aggregate 83.3 Matrix 64.4

**IDENTATION**

1 lb. steel ball applied with 200 lbs. of pressure for 30 minutes at 77 degree F

Indentation...0.009 inches

**SPECIFIC GRAVITY**

ASTM D-792

2.20

**THERMAL SHOCK**

MIL-F-52505

No evidence of peeling, cracking, crazing or deterioration

**WATER ABSORPTION**

ASTM D-570, Immersion in 75 degree F water for 24 hours after conditioning for 24 hours at 212 degree F

1.40%

**WEIGHT**

3.5 lbs. per square foot

**SIZE**

47-<sup>3</sup>/<sub>4</sub>" x 47-<sup>3</sup>/<sub>4</sub>" x 5/16" and 47-<sup>3</sup>/<sub>4</sub>" x 97-<sup>3</sup>/<sub>4</sub>" x 5/16".

3-01 **Execution:** Preparation:

- A. Do not begin installation of Terrazzo until the building has been held to a minimum temperature of 70° for five full days and the entire quantity of the Terrazzo and thin set mortar and grout have been stored inside the building for three full days. Maintain a minimum of 70° throughout the installation period.

B. **INSTALLATION MATERIALS**

Installation materials for Terrazzo tiles shall be as supplied by LATICRETE International, Inc., Bethany, CT USA. Telephone: 1-800-243-4788 or (203) 393-0010, Fax: (203) 393-1684, Email: [technicalservices@laticrete.com](mailto:technicalservices@laticrete.com) Internet: [www.laticrete.com](http://www.laticrete.com).

**SURFACE PREPARATION MATERIALS:**

1. LATICRETE® 86 LatiLevel™ self-leveling underlayment and LATICRETE Admix & Primer – apply LATICRETE Admix and Primer in accord with manufacturer's installation instructions. Allow primer to tack up and then apply LATICRETE 86 LatiLevel self leveling underlayment (up to 1 ½" [37mm])



thickness - (see product data sheets 662.0, 238.9 and 002.4).

2. LATICRETE 816 LatiPatch to repair and flash patch concrete floors up to ½" (12mm) thickness per lift.

### III. SUBSTRATE REQUIREMENTS / PREPARATION

**Note: Substrates must meet the maximum allowable deflection standard of L/480 for Terrazzo tile finishes under total anticipated load.**

Prior to commencing the installation, the contractor shall examine the areas to be covered and advise the General Contractor and Architect of any existing conditions or surface contamination which will require correction before the work commences. Before starting, surface to be covered shall be cleaned to remove curing compounds, sealers, soil, mortar, dirt, dust, etc. Curing compounds or sealers shall be removed by "bead-blasting," grit / sand blasting or diamond wheel grinder with dustless vacuum attachment or equivalent methods of mechanical "scarifying." After removal of the curing compounds or sealers all rough, uneven or "out-of-plumb" surfaces shall be made "plumb and true" to within 1/8" in 10' (3 mm in 3 m) and 1/16" in 1' (1.5 mm 300 mm) using a LATICRETE Surface Preparation product as outlined under the installation materials section. Dry or dusty concrete or masonry surfaces shall be wet down or washed and excess water removed just prior to the application of the adhesive mortar.

**TCNA F-113** – FLOOR - Thin Bed Floor Method using LATICRETE® 254 Platinum multipurpose thin set mortar. See LATICRETE product data sheet 677.0. For full installation details and specifications see LATICRETE installation specification ES-F113 – [www.laticrete.com.ag](http://www.laticrete.com.ag).

**TCNA F-111** – FLOOR - Unbonded Thick Mortar bed / Cleavage Membrane with wire reinforcing. Mortar bed consists of LATICRETE 3701 Fortified Mortar Bed. Use LATICRETE 254 Platinum as a bond coat to wet set into the fresh mortar bed or as a thin bed mortar over the hardened mortar bed. See LATICRETE product data sheets 100.0 & 677.0. For full installation details and specifications see LATICRETE installation specification ES-F111 – [www.laticrete.com.ag](http://www.laticrete.com.ag).

**TCNA F112** – FLOOR - Bonded Mortar bed. Slurry bond to attached mortar bed to concrete slab shall be LATICRETE 254 Platinum. Embed mortar bed into the slurry bond coat while wet and tacky. Mortar bed consists of LATICRETE 3701 Fortified Mortar Bed. Use LATICRETE 254 Platinum as a bond coat to wet set into the fresh mortar bed or as a thin bed mortar over the hardened mortar bed. See LATICRETE product data sheets 100.0 & 677.0. For full installation details and specifications see LATICRETE installation specification ES-F112 – [www.laticrete.com.ag](http://www.laticrete.com.ag).

**TCNA W260 or W215** – WALL - Epoxy Spot Bond for Interior Wall Applications over cement backer board or concrete / masonry substrates. Epoxy Spot Bond Adhesive shall be LATAPOXY® 310 Stone Adhesive (Standard or Rapid Grade). See LATICRETE product data sheets 679.0 & 679.3. For full installation details and specifications; see LATICRETE installation specification ES W265 – [www.laticrete.com.ag](http://www.laticrete.com.ag)

Crack Isolation Membrane shall be LATICRETE® Hydro Ban™. See LATICRETE product data sheets 663.0 & 663.5.

Waterproofing Membrane shall be LATICRETE Hydro Ban. See LATICRETE product data sheets 663.0 & 663.5.

Grout shall be one of the following:

LATICRETE SpectraLOCK® PRO Grout (see LATICRETE product data sheet 685.0 and

685.5) LATICRETE PermaColor™ Grout (see LATICRETE product data sheet 250.0)

LATICRETE 1600 Unsanded Grout gauged with LATICRETE 1776 Grout Enhancer (see

LATICRETE product data sheets 258.0 and 265.0)

Silicone Sealants shall be LATICRETE Latasil™ silicone sealant (see LATICRETE product data sheet 6200.1)

**NOTE:** Use Latasil 9118 Primer for use in all submerged applications and to improve adhesion in all applications (see LATICRETE product data sheet 6528.1)

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Follow all ceramic tile and stone industry installation guidelines (including expansion joint design, construct and placement) as outlined in the Tile Council of North America's (TCNA) TCA Handbook for Ceramic Tile Installations and the American National Standard Specifications for the Installation of Ceramic Tile handbook (ANSI), the project specifications, details and the written installation instructions of LATICRETE International, Inc.

#### **IV. INSTALLATION OF WATERPROOFING AND CRACK SUPPRESSION MEMBRANE**

Waterproof membrane is installed before tile is installed in all wet areas and wet areas that are above occupied or enclosed areas.

Crack isolation membrane is installed before tile is installed over all hairline cracks ( $\leq 1/8''$  or 3mm) in surfaces to receive new tile work.

LATICRETE Hydro Ban can be used for both waterproofing and crack isolation membrane applications.

#### **V. ADHESIVE MORTAR INSTALLATION INSTRUCTIONS**

##### **MIXING**

Follow the mixing and installation instructions for each of the individual LATICRETE products used by consulting the product data sheet, installation instructions on the product packaging, how-to-install instructions and the complete installation specification and details found at [www.laticrete.com/ag](http://www.laticrete.com/ag). The product data sheets can be viewed and/or download by visiting [www.laticrete.com](http://www.laticrete.com)

##### **INSTALLATION OF TILE BY THINBED METHOD**

The thin bed adhesive shall be applied with a notched trowel using a scraping motion to work the material into good contact with the surface to be covered. A trowel having notches large enough to insure "full bedding" of the tiles is recommended. Only as much adhesive shall be applied as can be covered within 10-15 minutes, or while adhesive surface is still wet and tacky. When installing Terrazzo® Large Format Tile a small quantity of the adhesive shall be applied to the back of each tile. Tile shall then be set in place and pressed firmly to insure 100% full bedding and a true surface. Tile shall be aligned to show uniform joints and then allowed to set until firm. Excess adhesive must be cleaned from the surface of the tile with a wet cloth or sponge while the adhesive is fresh.

##### **INSTALLATION OF TILE BY SPOT BOND METHOD (Interior Vertical Applications Only)**

Store epoxy resins at room temperature 70°F (21°C) for 24 hours before using. All substrates must be clean when application of LATAPOXY® 310 Stone Adhesive is made. Clean the back of the tile at areas to receive

the LATAPOXY 310 Stone Adhesive. Using a damp sponge (not wet), wipe the tile to remove any particles or remaining dust to ensure a clean direct bond and that all ground material is removed. Wipe dry with a clean cloth, then apply LATAPOXY 310 Stone Adhesive. Apply dabs evenly distributed on back of the tile; 5 dabs minimum, 1 in each corner and 1 in center. Cover at least 10% of the facial area of each piece. Finished dab thickness must be a minimum of 1/8" (3mm). After application of LATAPOXY 310 Stone Adhesive onto the tile, place tile onto substrate and adjust for plumb and level.

#### **VI. GROUTING AND POINTING JOINTS**

Follow the mixing and installation instructions contained in the product packaging, data sheets and how to install instructions for the grouting product that will be utilized. Joints shall be packed full and free of all voids and pits. (Tool or rake as specified). Excess grout shall be cleaned from the surface as the work progresses, while grout is fresh and before it hardens. The day after installation grout film or haze shall be removed using a neutral Ph detergent solution. Epoxy grout haze should be removed the same day as indicated in the printed product instructions. No acids should be used for cleaning tile work.

#### **VII. EXPANSION AND CONTROL JOINTS**

Use LATICRETE® Latasil silicone sealant where a flexible silicone sealant is required and for use in



movement joints. Follow industry guidelines for the design, placement and construct of movement joints. Reference Tile Council of North America's Guidelines EJ-171 and the American National Standard Specifications for the Installation of Ceramic Tile A108.01 – 3.7 Requirements for movement joints.

## **VII. PROTECTION**

The contractor shall take precautions to protect the finished work from damage by other trades. Do not allow construction traffic on fresh grout joints. Allow the cement grout to cure for a minimum of 7 days at 70° F (21° C) before aggressive cleaning. *NOTE: Steam cleaning LATICRETE SpectraLOCK Grout is not recommended.*

### **COLD WEATHER NOTE:**

The curing of portland cement based terrazzo tile and stone installation mortars, adhesives & grouts is retarded by low temperatures and finished work should be protected for an extended period of time.

### **WET AREA NOTE:**

When using LATICRETE latex fortified cement grout allow tile work in wet areas such as swimming pools and fountains to cure for 14 days at 70° F (21° C) before exposing to immersion. When using LATICRETE SpectraLOCK PRO Grout allow tile work in wet areas, such as swimming pools and fountains to cure for a minimum of 10 days at 70° F (21° C) before exposing to immersion.

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