

**SECTION 09 66 16**  
**RESILIENT TERRAZZO FLOOR TILE**

**PART 1 - GENERAL**

**1.1 DESCRIPTION**

Resilient marble terrazzo tile for installation over concrete floors.

**1.2 RELATED WORK**

- A. Resilient Base: Section 09 65 13, RESILIENT BASE AND ACCESSORIES.
- B. Concrete floors: Section 03 30 00, CAST-IN-PLACE CONCRETE.
- C. Color and Pattern: Section 09 06 00, SCHEDULE FOR FINISHES.

**1.3 SUBMITTALS**

- A. In accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES, furnish the following:
- B. Flooring Manufacturer's Literature and Data: Printed installation instructions for conditions indicated.
- C. Certificates: Indicating materials conform to specified requirements. Indicating flooring manufacturer's approval of underlayment, adhesive and cleaners.
- D. Samples: Terrazzo Tile (each color and pattern to be used)

**1.5 DELIVERY**

Deliver materials to job in manufacturer's original unopened containers, free of damage, with manufacturer's brand name marked thereon.

**1.6 STORAGE**

Store materials in a protected area. Storage area shall be kept dry and temperature of storage area shall not be lower than 10 degrees C (50 degrees F) or higher than 32 degrees C (90 degrees F).

**1.7 PROJECT CONDITIONS**

Tiles shall not be installed until all other work that could cause damage to the finish flooring has been completed. Maintain a temperature of not less than 21 degrees C (70 degrees F) in spaces where tile is to be installed for at least 48 hours before, during and after the laying of tiles. Bring tile into such spaces and allow it to condition at not less than 21 degrees C (70 degrees F) at least 48 hours before installing. A minimum temperature of 13 degrees C (55 degrees F) shall be maintained thereafter.

**1.8 WARRANTY**

Terrazzo tile is subject to terms of "Warranty of Construction" FAR clause 52.246-21, except that warranty period is two years in lieu of one year.

## 1.9 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by basic designation only.
- B. American Society for Testing And Materials (ASTM):
- C109-05.....Compressive Strength of Hydraulic Cement Mortars
- D2047-04.....Static Coefficient of Friction of Polish Coated  
Floor Surfaces as Measured by the James Machine
- E648-06.....Critical Radiant Flux of Floor Covering Systems  
Using a Radiant Heat Energy Source
- C. Military Specifications (Mil. Spec.):
- MIL-D-3134J.....Deck Covering Materials

## PART 2 - PRODUCTS

### 2.1 TERRAZZO TILE

Terrazzo tile shall consist of marble chips embedded in a flexible thermo-set resin matrix. Tiles shall be 5 mm (3/16-inch) thick, and nominal 300 x 300 mm (12 inches by 12 inches) square. Tiles shall have a smooth polished finish with uniform color distribution of chips. Granite chips shall be manufacturer's standard gradation. Tile shall have the following properties.

| TABLE I - MARBLE TERRAZZO TILE                       |  |  |
|--|--|--|
| PROPERTY   | TEST METHOD  | VALUE  |
| Compressive strength<br>Water absorption<br>Hardness | ASTM 109<br>Mil.Spec.MIL-D-3134<br>Barcol Hardness | 51.7 Mpa (7500 psi) minimum<br>0.4 percent maximum<br>Resin 78, Marble<br>at 25 degrees C<br>55-85 |
| Coefficient of<br>Friction<br>Flame Resistance       | ASTM D2047<br>ASTM E645                            | 0.70<br>0.45 watt/cm square<br>minimum   |

### 2.2 ADHESIVE

Shall be terrazzo tile manufacturer's standard product or a product recommended by the terrazzo tile manufacturer.

### 2.3 WALL BASE

See Section 09 65 13, RESILIENT BASE AND ACCESSORIES.

### 2.4 EDGE STRIPS

- A. 28 mm (1-1/8 inch) wide unless shown otherwise.

- B. Bevel from maximum thickness to minimum thickness for flush joint unless shown otherwise.
- C. Resilient Edge Strip or Reducer Strip: Fed. Specs. SS-T-312, Solid vinyl.

### **PART 3 - EXECUTION**

#### **3.1 GENERAL**

Provide flooring and base on floor surfaces and walls where shown on the drawings. Provide resilient base as scheduled for room or space, for freestanding columns, pilasters, furred spaces convectors and where shown. Resilient base required over base of casework is specified in other sections. Except as necessary to install new tile, keep all traffic off new tile for at least 24 hours after installation.

#### **3.2 SUBSTRATE PREPARATION**

- A. Concrete Floors (New Construction): Fill holes and cracks with approved mortar. Concrete floors shall be free of curing compounds, grease, dirt, loose particles and other foreign matter that would prevent adhesion. Remove projecting irregularities by chipping or grinding smooth. Fill depressions and level uneven surfaces with underlayment. Then rinse subfloors and allow them to dry thoroughly before applying adhesive.
- B. Concrete Floors (Existing Construction): Remove any existing resilient flooring and condition subfloors to provide smooth, clean, continuous surface. Use underlayment where required to provide level surfaces ready to receive tile. Fill holes and cracks in concrete subfloors with mortar. Remove grease, dirt, loose particles, and other foreign matter that would prevent adhesion. Then, rinse subfloors and allow to dry thoroughly before applying adhesive.

#### **3.3 MOISTURE TEST**

After concrete floor surfaces have been cleaned, spread small patches of adhesive to be used, in several locations in each room and allow to dry overnight. If the adhesive can be peeled easily from the floor surfaces, the floor is not sufficiently dry. The test shall be repeated until the adhesive adheres properly. Lay tile flooring when the adhesive adheres tightly to the subfloor.

#### **3.4 INSTALLATION**

- A. Install tile in accordance with the tile manufacturer's approved installation instructions, except as specified herein. Lay design symmetrical about center lines of rooms. Joints shall be tight, and inconspicuous as possible, and in true alignment. Cut tile to fit snugly at pipes and other fixed vertical surfaces. Seal joints at pipes with

adhesive. Remove spots or smears of adhesive immediately. Make entire surfaces of finished tile floors smooth, straight, and free from bleeding adhesive, buckles, waves or projecting tile edges upon completion. Remove any surface film on back of base due to mold release agents as recommended by base manufacturer, before applying base adhesive.

1. Where edge strip or transition strip is required, install per manufacturer's instructions.
2. Bleeding of adhesive on finished floors is considered cause for rejection. Replace damaged tiles.

B. Premolded Base: Install as specified in Section 09 65 13, RESILIENT BASE AND ACCESSORIES.

### **3.5 CLEANING**

Upon completion of the installation, and after adhesive has cured, clean flooring in accordance with manufacturer's recommendations.

### **3.6 PROTECTION**

From the time of laying until acceptance, protect the flooring from damage. Replace damaged, loose, broken, or curled tiles.

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