

GUIDE SPECIFICATION FOR MONOLITHIC TERRAZZO

(Revised 6/94 Supersedes all previous specifications for Monolithic Terrazzo)

SECTION 09

MONOLITHIC TERRAZZO

1/2 inch nominal thickness.

PART 1 - GENERAL

1.01 RELATED WORK SPECIFIED IN OTHER SECTIONS

Note: Delete nonapplicable items.

- A. Furnishing and installation of metal lath and scratch coat,
Section _____
- B. Attachment of metal stairs, any welding and/or reinforcing,
Section _____
- C. Furnishing and setting floor drains,
Section _____
- D. Furnishing and setting surface hardware,
Section _____
- E. Setting of metal base beads and wood grounds,
Section _____

Note: Delete where jurisdiction permits terrazzo contractor to install.

- F. Concrete subfloor,
Section _____

Note: Concrete subfloor to be level (maximum variation not to exceed 1/4 inch in a 10 foot span) and to have a finely textured broom finish. No curing agents or other additives which could prevent bonding should be used. NOTE: Saw cutting of control joints must be done 12-24 hours after placement of the structural concrete.

- G. Broom clean area to receive terrazzo of loose chips and all foreign matter.
- H. Sufficient water, temporary heat and light, and adequate electric power with suitable outlets connected and distributed for use within 100 feet of any working space.
Note: Ambient temperatures shall be maintained at minimum of 50 degrees Fahrenheit.

1.02 QUALITY ASSURANCE

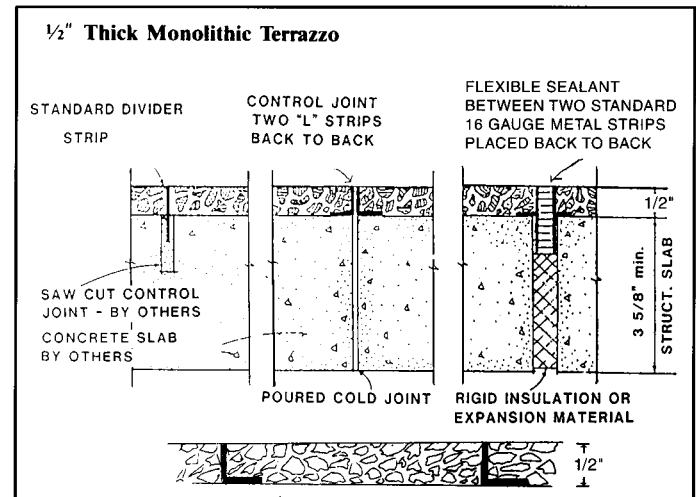
- A. Acceptable Suppliers:
 - 1. Suppliers shall provide materials in accordance with the NTMA standards.
- B. Acceptable Installer:
 - 1. Installer shall be a contractor member of NTMA and shall perform all work in accordance with NTMA standards.
 - 2. If installer is not a contractor member of NTMA, installer shall submit a list of completed projects of similar magnitude and complexity.

1.03 SUBMITTAL

- A. Samples:
 - 1. Submit a maximum of three samples, sizes 6 inches x 6 inches for each color and type of terrazzo specified.
 - 2. Submit two, 6-inch lengths of each type and kind of divider strip as specified.
- B. Maintenance Literature:
 - 1. Submit two copies of NTMA maintenance recommendations.
- C. Certification:
 - 1. Suppliers shall furnish certification attesting that materials meet specification requirements.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Delivery of Materials:
 - 1. Deliver materials in a manner to prevent damage to containers and/or bags.
- B. Storage of Materials:
 - 1. Store materials in a clean, dry, heated location furnished by others.



1.05 GUARANTEE

One year from date of completion of terrazzo installation

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Portland Cement: ASTM C 150,
Color _____
Note: Select white or gray. White cement is uniform in color. Gray Portland cement may not be uniform in color and may produce a variation of shade in the matrix. (See Product Information.)
- B. Marble Chips:
 - 1. Size: To conform with NTMA gradation standards.
Note: See Product Information
 - 2. Abrasion and Impact resistance when testing in accordance with ASTM C 131-89 shall not exceed 40% loss.
 - 3. 24-hour absorption rate not to exceed 0.75%.
 - 4. Chips shall contain no deleterious or foreign matter.
 - 5. Dust content less than 1% by weight.
- C. Strips:
 - 1. Divider Strips: _____ (gauge) _____ (material) with a depth of _____ (inches) for a topping thickness of _____ (inches.)
Note: (See Divider Strips.) Select gauge, material, depth and topping thickness. Gauge: 18, 16, or 14 B & S gauge or 1 1/8, 1 1/4, or 3/8 inch heavy top. Material: White alloy of zinc, brass or plastic. Depth: 1 1/4 inches for 1/2 inch standard topping; 1 1/2 inches for a 3/4 inch Venetian topping. K or L strips may be used for aesthetic reasons and are anchored by nailing or adhesive directly on subfloor.
- D. Colorants: Alkali-resistant color stable pigments.
Note: Refer to NTMA Information Guide for further information.
- E. Bonding agents: Neat Portland cement, epoxy or acrylic.
- F. Curing Materials: Water, wet sand, or polyethylene sheeting.
- G. Terrazzo cleaner:
 - 1. pH factor between 7 and 10, where applicable
 - 2. Biodegradable and phosphate free
- H. Sealer:
 - 1. pH factor between 7 and 10, where applicable
 - 2. Shall not discolor or amber
 - 3. Penetrating type specially prepared for use on terrazzo.
 - 4. Flash Point: ASTM D 56, 80 degrees Fahrenheit minimum,

where applicable.

5. U/L Listed as "Slip Resistant."

2.02 MIXES

A. Terrazzo Selection:

Note: Select type or types: Standard or Venetian.

2. NTMA Plate # _____

Note: Select color and design from NTMA Color Plates. Any deviation from NTMA plates must be clearly stipulated.

B. Proportions:

1. Terrazzo Topping: One 94 pound bag of Portland cement per 200 - 220 pounds of marble chips, color pigment if required and sufficient potable water to produce a workable mix.

C. Mixing:

1. Terrazzo Topping:
 - a: Charge and mix marble chips, Portland cement and color pigment if required.
 - b: Add water and mix to a uniform workable consistency.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine areas to receive terrazzo for:

1. Defects in existing work that affect proper execution of terrazzo work.

NOTE: STRUCTURAL CRACKS IN SUBSTRATE WILL USUALLY BE TRANSMITTED THROUGH TOPPING TO SURFACE.

2. Deviations beyond allowable tolerances for the concrete slab work.

B. Start work only when all defects have been corrected by others.

3.02 INSTALLATION

A. Subfloor:

1. Install control joints above control joints in subfloor.
2. Install divider strips as shown on drawings.

B. Placing Terrazzo:

1. Saturate concrete with water.

Note: Do not saturate concrete substrate with water if an epoxy bonding agent is used.
2. Apply bonding agent.

Note: Synthetic bonding agent (acrylic or epoxy) may be considered.

3. Place Terrazzo mixture in panels to top of strips.
4. Seeding of additional marble chips is optional.
5. Roll and compact surface until all excess cement and water has been extracted.
6. Trowel to a uniform surface disclosing lines of divider strips.

C. Curing:

1. After completing placement of terrazzo and composition has sufficiently set, cover with water, wet sand or polyethylene sheeting.
2. Cure until topping develops sufficient strength to prevent lifting or pulling of terrazzo chips during grinding.

D. Finishing:

1. Rough Grinding:

- a: Grind with 24 or finer grit stones or with comparable diamond plates.
- b: Follow initial grind with 80 or finer grit stones.

2. Grouting:

- a: Cleanse floor with clean water and rinse.
- b: Remove excess rinse water and machine or hand apply grout, taking care to fill voids.

3. Cure grout:

Note: Grout may be left on terrazzo until all heavy and messy work on project is completed.

4. Fine Grinding:

- a: Grind with 80 or finer grit stones until all grout is removed from surface.
- b: Upon completion, terrazzo shall show a minimum of 70% marble chips.

E. Cleaning and Sealing:

1. Wash all surfaces with a neutral cleaner.
2. Rinse with clean water and allow surface to dry.
3. Apply sealer in accordance with manufacturer's directions.

F. Protection:

1. Upon completion, the work shall be ready for final inspection and acceptance by the owner or his agent.
2. The General Contractor shall protect the finished floor at the time that the Terrazzo Contractor completes the work.