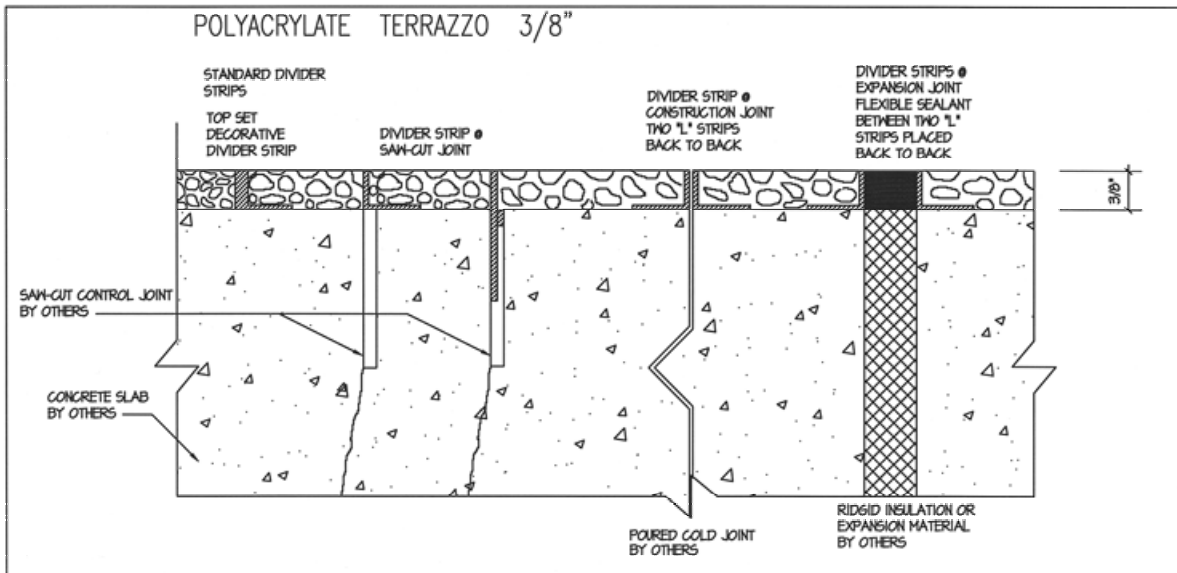


# GUIDE SPECIFICATION FOR POLYACRYLATE MODIFIED TERRAZZO

(Revised 6/94 Supersedes all previous Specifications)



## SECTION 09

### POLYACRYLATE MODIFIED TERRAZZO

3/8 inch nominal thickness. Select thickness desired.

#### PART 1-GENERAL

##### 1.01 RELATED WORK SPECIFIED IN OTHER SECTIONS

NOTE: DELETE NONAPPLICABLE ITEMS.

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

NOTE: DELETE IN CASES WHERE JURISDICTION PERMITS TERRAZZO CONTRACTOR TO INSTALL.

- F. Concrete subfloor, Section \_\_\_\_\_  
NOTE: CONCRETE SUBFLOOR SHALL BE LEVEL (MAXIMUM VARIATION NOT TO EXCEED 1/4 INCH IN 10 FEET) AND SHALL HAVE A FINELY TEXTURED BROOM FINISH. NO CURING AGENTS OR OTHER ADDITIVES WHICH COULD PREVENT BONDING SHOULD BE USED. SAW CUTTING OF CONTROL JOINTS MUST BE DONE BETWEEN 12-24 HOURS AFTER PLACEMENT OF THE STRUCTURAL CONCRETE.
- G. Broom clean area to receive terrazzo of loose chips, laitance and all foreign matter.
- H. Sufficient water, temporary heat and light, and adequate electric with suitable outlets connected and distributed for use within 100 feet of any working space.
- I. Ambient and subfloor temperature shall be maintained at a minimum of 50 degrees Fahrenheit.

##### 1.02 QUALITY ASSURANCE

- A. Acceptable supplier:
  - 1. Materials furnished shall meet NTMA Specifications.
- B. Installer qualifications:
  - 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 a similar magnitude and complexity.

##### 1.03 SUBMITTAL

- A. Samples:
  - 1. Submit a maximum of three samples, minimum 6" x 6" for each color and type of terrazzo.
  - 2. Submit two, 6" minimum lengths of each type and kind of divider strips.
- B. Maintenance Literature:
  - 1. Submit two copies of maintenance recommendations of NTMA or maintenance product members of NTMA.
- C. Certification:
  - 1. Suppliers shall furnish certification attesting that materials meet specification requirements.

2. Supplier shall furnish properly labeled material and Material Safety Data Sheets which comply with current State or federal 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 and heated (if necessary) location.

**1.05 GUARANTEE**

One year from date of substantial completion of Terrazzo installation.

**PART 2-PRODUCTS**

**2.01 MANUFACTURER MATERIAL LIST**

- A. Primer: As recommended by Polyacrylate Resin Supplier.
- B. Polyacrylate Binder: Formulated to meet physical properties of MIL-D-3134F.
- C. Polyacrylate Terrazzo:
  1. Odor, Fire and Toxicity Hazards: The Polyacrylic terrazzo, both before and after setting, shall not constitute an undue fire hazard, nor shall fumes from volatile substances contained in the material be more toxic than those resulting from the use of ordinary latex paint and free from objectionable odors under ordinary service conditions.
  2. Weight: Polyacrylate terrazzo shall normally weigh 3.0 pounds per square foot in a thickness of 1/4 inch or 4.5 pounds for 3/8" thickness.
  3. Resistance to Impact: The Polyacrylate terrazzo shall, when bonded securely to concrete, show no visible signs of chipping, cracking, or loss of bond when tested with 16ft lbs. 16 ft. lbs is the dropping of a 2 pound steel ball from a height of eight feet.
  4. Indentation: The Polyacrylate terrazzo shall, when bonded securely to concrete, show no signs of cracking or detachment. Initial indentation of the Polyacrylate terrazzo shall be less than 7% and more than 1% when tested in accordance with MIL-D-3134F. Section 4.7.4.
  5. Resistance to Elevated Temperature: The Polyacrylate terrazzo shall, when securely bonded to concrete, not flow or slip in any part more than 1/16 inch or soften when tested in accordance with MIL-D-3134, Section 4.7.5.
  6. Moisture Absorption: The Polyacrylate terrazzo shall not absorb more than 5% moisture based on its weight at normal atmospheric conditions when tested in accordance with MIL-D-3134F, Section 4.7.8.
  7. Resistance to Wear: The Polyacrylate terrazzo shall show wear not to exceed 0.150 inch when tested in accordance with MIL-D-3134F, Section 4.7.10.
  8. Tensile Strength: Shall be at least 700 psi after aging 28 days when tested in accordance with ASTM-C-190.
  9. Bond Strength: To damp, cured concrete, after aging 28 days shall be at least 300 psi with failure in the concrete when tested in accordance with ACI Committee #403.
  10. Flexural Strength: Shall have a minimum flexural strength of 2000 psi when tested according to ASTM-C-348.
  11. Thermal Coefficient of Expansion: Matrix material shall develop a coefficient of thermal expansion not greater than 10 x 10-6 (Test Method ASTM-C-157.)
  12. Flammability: Matrix material shall not support combustion (Test Method 15 minute suspension of sample at top of flame from Fisher Burner.)
- D. 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.
- E. Strips:
  1. Stop and Divider "K" or "L" strips \_\_\_\_\_ (gauge)  
 \_\_\_\_\_ (material)  
 with a depth of \_\_\_\_\_ (inches)  
 for a topping thickness of \_\_\_\_\_ (inches).  
*NOTE: (SEE DIVIDER STRIPS) SELECT GAUGE, MATERIAL, STRIP DEPTH AND TOPPING THICKNESS. GAUGE: 18, 16 OR 14 B & S GAUGE OR 1/8, 1/4, OR 3/8 INCH HEAVY TOP. MATERIAL: WHITE ALLOY OF ZINC, BRASS OR PLASTIC STRIPS.*
  2. Control joints double "L" strips \_\_\_\_\_ gauge,  
 \_\_\_\_\_ material,  
 \_\_\_\_\_ inches.  
*NOTE: SELECT GAUGE, MATERIAL AND DEPTH OF STRIPS, POSITIONING THEM BACK TO BACK. GAUGE: 16 OR 14 B & S GAUGE.*
- F. Colorants: Alkali-resistant color stable pigments.
  1. Per manufacturer's recommendations.
- G. TERRAZZO CLEANER:
  1. Ph factor between 7 and 10, where applicable.
  2. Biodegradable and phosphate free.
  3. Flash point: ASTM D-56, 80 degrees Fahrenheit minimum where applicable.
- 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:

1. Type:

*NOTE: SELECT COLOR AND DESIGN FROM NTMA INFORMATION GUIDE OR COLOR PLATES. ANY DEVIATION MUST BE CLEARLY STIPULATED.*

B. Proportions:

1. Polyacrylate Terrazzo Topping: In accordance with resin supplier's recommendations.

C. Mixing:

1. Terrazzo Topping: Charge and mix marble chips, filler and polyacrylate resin in accordance with manufacturer's recommendations.

### **PART 3-EXECUTION**

#### **3.01 INSPECTION**

A. Examine areas to receive terrazzo for:

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

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

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

*NOTE: SUBFLOOR NOT TO VARY MORE THAN 1/4 INCH FROM TRUE PLANE IN 10 FEET. POLYACRYLATE TERRAZZO, AS SPECIFIED, IS NOT INTENDED TO LEVEL SUBSTRATE AND WILL ONLY FOLLOW THE CONTOUR OF THE CONCRETE SLAB. IF, FOR ANY REASON, THE SUBCONTRACTOR QUESTIONS THE SUITABILITY OF THE SUBSTRATE FOR BONDING, ANY WORK REQUIRED TO ELIMINATE NON-CONFORMITY OF SUBSURFACE SPECIFICATIONS IS THE RESPONSIBILITY OF OTHERS, ANY MATERIALS USED TO CORRECT NONCONFORMITY MUST BE COMPATIBLE WITH POLYACRYLATE SYSTEM SELECTED AND BE APPROVED BY THE TERRAZZO CONTRACTOR.*

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

#### **3.02 INSTALLATION**

A. Subfloor:

1. Clean and prepare concrete subfloor according to manufacturer's instructions.
2. Install control joints back to back above control joints in subfloor.
3. Install divider strips as shown on drawings.
4. Dampen concrete subfloor.

B. Placing Terrazzo:

1. Prime subfloor in accordance with manufacturer's recommendations.
2. Place terrazzo mixture in panels formed by divider strips. Trowel mixture to top of strips.
3. Roll surface to remove excess slurry.
4. Trowel to uniform surface disclosing lines of divider strips.
5. Additional marble chips may be sprinkled on surface prior to rolling at installer's option.

C. Curing: According to manufacturer's recommendations.

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 terrazzo with clean water and rinse.
  - b. Remove excess rinse water and hand apply grout using identical Portland cement, color pigments as used in topping, taking care to fill voids.
3. Cure Grout.

*NOTE: GROUT MAY BE LEFT ON TERRAZZO UNTIL ALL HEAVY AND MESSY WORK IN 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% of 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 work from the time that the terrazzo contractor completes the work.