

GUIDE SPECIFICATION FOR MONOLITHIC RUSTIC TERRAZZO

(Monolithic Rustic Terrazzo – Direct Bond to Concrete Slab)

(Revised 6/94 Supersedes all previous specifications)

SECTION 09

RUSTIC TERRAZZO

Rustic Terrazzo can utilize any cementitious terrazzo system. Most Rustic Terrazzo is installed on exterior, on-grade locations. NTMA considers the Structural System, Bonded or Unbonded System with underbed and Direct bond system suitable for this type of installation. Monolithic system 1/2" to 3/4" thickness to concrete substrate slab by others.

PART 1-GENERAL

1.01 RELATED WORK SPECIFIED IN OTHER SECTION

NOTE: DELETE NONAPPLICABLE ITEMS.

A. Furnishing temporary power.

Section _____

B. Furnishing clean water.

Section _____

C. Structural concrete slab to receive terrazzo topping.

Section _____

1. Clean area to receive terrazzo of loose chips, laitance, and foreign matter. Concrete slab specification is determined by project designer. However, performance of the slab is related to the performance of the terrazzo finish.

2. Following is recommended minimum specification for slab:

a. Maximum 3" slump, designed to exceed 4,000 psi in 28 days after placement.

b. Finished 1/2" to 3/4" below finished floor elevation (depending on size of aggregate). Surface roughened to facilitate bond of topping. Broom finish with stiff broom to striate approximately 1/8" deep, 1/8" wide and 1/8" apart.

c. Surface must not be cured with a liquid membrane or contain other additives which could prevent bond of terrazzo topping.

D. Expansion joints in concrete substrate slab.

Section _____

NOTE: INSTALLED AT BUILDING PERIMETER, AROUND ALL COLUMN BASES AND TO DIVIDE THE SLAB APPROXIMATELY 10' x 10' EACH WAY, BUT NOT TO EXCEED 125 SQUARE FEET OF INCLUDED AREA, FULL DEPTH OF THE CONCRETE AND SET FLUSH WITH THE TOP OF THE CONCRETE SLAB. JOINT MATERIAL: 1/2" THICK PREFORMED, NON-EXTRUDED, FIBER EXPANSION JOINT MATERIAL, OR SIMILAR COMPRESSIBLE MATERIAL. SAW CUTTING OF CONTROL JOINTS MUST BE DONE BETWEEN 12-24 HOURS AFTER PLACEMENT OF THE STRUCTURAL CONCRETE.

E. Provision of floor drains.

Section _____

F. If required, provide enclosure with temporary heat maintained at a minimum of 45 degrees Fahrenheit.

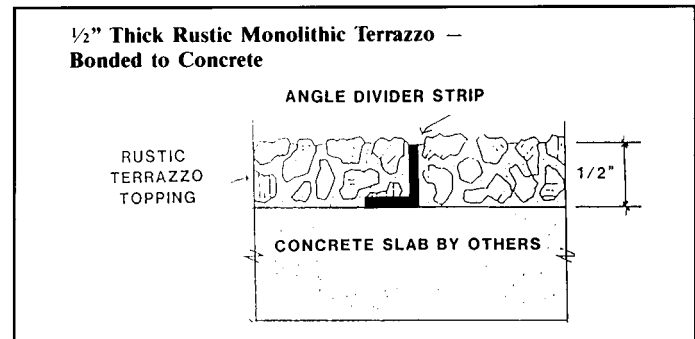
1.02 QUALITY ASSURANCE

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 rustic 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.

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 MATERIALS

A. Portland cement: ASTM C 150, Color _____

NOTE: SELECT AND SPECIFY WHITE OR GRAY FOR TERRAZZO TOPPING. WHITE CEMENT IS UNIFORM IN COLOR. GRAY CEMENT MAY NOT BE UNIFORM IN COLOR AND MAY PRODUCE A VARIATION OF SHADE IN THE MATRIX. WHERE CLIMACTIC CONDITIONS SO DEMAND, SPECIFY AN AIR ENTRAINING AGENT (6% AIR PLUS OR MINUS 1%) FOR STRUCTURAL SLAB TO MINIMIZE FREEZE-THAW CYCLE DAMAGE. PACKAGE AIR ENTRAINING CEMENT MUST NOT BE USED.

B. Marble, Quartz,, Granite and/or Gravel.

NOTE: SELECT HARD, DURABLE AGGREGATES, PARTICU-

LARLY IN AREAS WHERE FREEZING OCCURS. CONSULT LOCAL TERRAZZO INSTALLER. IN AREAS SUCH AS SWIMMING POOL DECKS, WHERE A SMOOTHER FINISH MAY BE DESIRED, OVAL AGGREGATE SHOULD BE CONSIDERED.

1. Size: Conform to NTMA Standards.
2. 24-hour absorption rate; Not to exceed 0.75%.
3. Chips: Contain no deleterious or foreign matter

C. Strips:

1. Expansion joints; Angle plastic material with a depth of 1/2" - 3/4"; Thickness: _____

Color: _____

or saw cuts, inserting straight strips into cuts.

NOTE: SPECIFY MATERIAL AND SIZE. USE ETHAFOAM, BUTYL RUBBER OR CORK. 1 1/2" IS RECOMMENDED WIDTH, FULL DEPTH OF TOPPING. PLACE DIRECTLY ABOVE EXPANSION JOINTS IN CONCRETE SUBSTRATE SLAB. SEE STRIP GUIDE.

2. Divider Strips:

Material _____

Gauge _____

D. Curing materials: 4-mil polyethylene sheeting or water.

E. Sealant: Polyurethane with appropriate backer rod.

F. Sealer:

1. Shall not discolor or amber.
2. Penetrating type specifically prepared for use with rustic terrazzo.

NOTE: SOLVENT ACRYLIC TYPE PREFERRED.

3. Flash point: ASTM D 56, 95 degrees Fahrenheit.

G. Bonding agents: Neat Portland Cement, epoxy or acrylic.

2.02 MIXES

A. NTMA Plate: _____

NOTE: SPECIFY COLOR AND DESIGN FROM NTMA COLOR PLATE. ANY DEVIATION FROM NTMA PLATE MUST BE CLEARLY STIPULATED.

B. Proportions:

1. Terrazzo topping:

NOTE: RECOMMENDED MIX: ONE BAG (94LB) OF PORTLAND CEMENT PER 200 LBS OF AGGREGATE AND 4 1/2 TO 5 GALLONS OF CLEAN WATER. DEPTH OF TOPPING 1/2" TO 3/4", DEPENDING ON SIZE OF AGGREGATE. CLEAN WHITE SAND MAY BE ADDED TO MIX.

C. Mixing: Add aggregate, water, and portland cement in proper proportions, and mix thoroughly to uniform consistency. Maintain consistency by using same amount of water for all batches.

PART 3-EXECUTION

3.01 INSPECTION

A. Examine areas to receive rustic terrazzo for:

1. Defects in existing work that affect proper execution of rustic terrazzo work.
2. Check concrete substrate for pitch to drains.
3. Check cleanliness of substrate slab.

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

3.02 INSTALLATION

A. Set expansion joints at required thickness of topping.

B. Placing rustic terrazzo topping:

1. Saturate concrete subfloor with clean water.

NOTE: DO NOT SATURATE CONCRETE SUBFLOOR WITH WATER IF AN EPOXY BONDING AGENT IS USED.

2. Apply bonding agent.
3. Place Rustic Terrazzo.
4. Roll and compact surface until all excess cement and water has been extracted.

C. Finishing:

1. Expose aggregate by hosing, absorbent rolling, or use of a retarder.

D. Curing:

1. Flood with clean water, or cover with 4-mil. polyethylene sheeting.

E. Cleaning:

1. When topping is sufficiently cured, in the opinion of the terrazzo installer, apply a 1 to 10 solution of muriatic acid in water, scrub with a stiff broom to remove laitance, and rinse immediately with clean water to remove traces of the acid.

NOTE: ACID WASH NO SOONER THAN 7 DAYS AFTER INSTALLATION.

F. Sealing:

1. Rinse floor with clean water and allow to dry.
2. When floor is thoroughly dry, apply the sealer in accordance with manufacturer's directions for use on rustic terrazzo.

G. Protection:

1. Upon substantial 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 from the time the rustic terrazzo installer completes the work.
NOTE: COORDINATE WITH THE SPECIFICATIONS FOR PROTECTION IN SECTION 01600, "MATERIALS AND EQUIPMENT".

IMPORTANT NOTE TO SPECIFIER FOR TRANSMITTAL TO OWNER OR OWNER'S AGENT: DE-ICING CHEMICALS AND SALT ARE INJURIOUS TO PORTLAND CEMENT SURFACES AND SHOULD NOT BE USED ON RUSTIC TERRAZZO.