

GUIDE SPECIFICATION FOR RUSTIC TERRAZZO (Structural system over granular fill)

(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 Monolithic System suitable for this type of installation.

Structural System: in the Structural System, both concrete substrate slab and terrazzo topping are provided by terrazzo installer. Minimum thickness of combination of substrate slab and terrazzo topping should be 5 inches.

PART 1-GENERAL

1.01 RELATED WORK SPECIFIED IN OTHER SECTIONS

NOTE: DELETE NONAPPLICABLE ITEMS.

A. Excavation and site work including compacted granular fill to receive substrate slab. Section _____

NOTE: GRANULAR FILL SPECIFICATIONS ARE DETERMINED BY PROJECT DESIGNER. HOWEVER, PERFORMANCE OF THE FILL IS RELATED TO THE PERFORMANCE OF THE TERRAZZO FINISH.

FOLLOWING ARE RECOMMENDED MINIMUM SPECIFICATIONS FOR FILL: GRANULAR AND/OR SAND FILL COMPACTED TO 95% OF MAXIMUM DENSITY PER MODIFIED PROCTOR TEST ASTM D 1557-70.

B. Concrete work other than specified herein.

Section _____

C. Furnishing temporary power.

Section _____

D. Furnishing clean water.

Section _____

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:

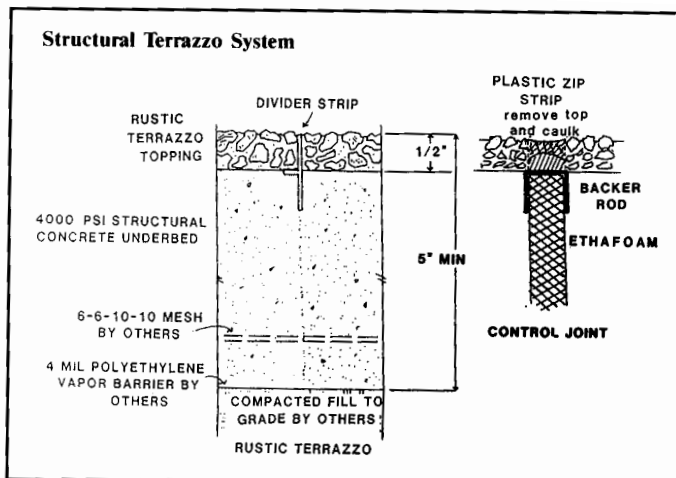
1. Submit a maximum of three samples, minimum 6" x 6" for each color and type of rustic terrazzo.
2. Submit two, 6" minimum lengths of each type and kind of divider strips.

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. Sand: Coarse, clean, washed, locally available sand.

C. Aggregate: 3/8 " - 1/2 " crushed stone.

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

NOTE: SELECT HARD, DURABLE AGGREGATES, PARTICULARLY IN AREAS WHERE FREEZING OCCURS. CONSULT LOCAL TERRAZZO INSTALLER. IN AREAS SUCH AS SWIMMING POOLS DECKS, WHERE SMOOTHER FINISH MAY BE DESIRED, OVAL AGGREGATE SHOULD BE CONSIDERED.

1. Size: Conform to NTMA standards.
2. 24-hour absorption rate: Not to exceed 0.25%.
3. Chips: Contain no deleterious or foreign matter.

E. Strips:

1. Expansion joints: Plastic with a cap strip top with a depth of 1 1/4"; Thickness: _____ Color: _____

NOTE: SPECIFY MATERIAL AND SIZE. USE ETHAFOAM, BUTYL RUBBER OR CORK. 1/2 " IS RECOMMENDED WIDTH, FULL DEPTH OF STRUCTURAL SLAB AND TOP-

PING. SEE STRIP GUIDE.

2. Divider strips: _____
Materials: _____
Gauge: _____
Depth: _____

NOTE: SPECIFY MATERIAL TYPE AND GAUGE. STANDARDS ARE 1/8", 1/4", AND 3/8", WITH HEAVY TOP AND NON-CORROSIVE SOLID ZINC OR STAINLESS STEEL BOTTOM IN COLD WEATHER CLIMATES.

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

G. Sealant: Polyurethane with appropriate backer rod.

H. Sealer:

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

NOTE: SOLVENT ACRYLIC TYPE PREFERRED.

I. Reinforcing mesh 6" x 6" x 10 gauge minimum.

NOTE: OR AS DESIGNED FOR SPECIFIC SLAB LOAD REQUIREMENTS.

2.02 MIXES

A. NTMA Plate: _____

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

B. Proportions:

1. Concrete substrate: 3" maximum slump designed to exceed 4,000 psi 28 days after placement, but using no less than 6 1/2 bags of portland cement per cubic yard of concrete. Observe cold and warm weather pouring recommendation of American Concrete Institute.

NOTE: RECOMMENDED MIX: 3/8" TO 1/2" CRUSHED STONE, COURSE SAND, PORTLAND CEMENT, CLEAN WATER, AIR-ENTRAINING AGENT (6% AIR PLUS OR MINUS 1%), OR AS DESIGNED FOR SPECIFIC SLAB LOAD REQUIREMENTS TO ACHIEVE 4,000 PSI AT A 3" SLUMP.

2. Terrazzo topping:

NOTE: RECOMMENDED MIX: ONE BAG (94 LBS) 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 THE SIZE OF AGGREGATE. CLEAN WHITE FINE 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 structural slab for defects in existing work that affect proper execution of the rustic terrazzo work.
- B. Granular fill and/or sand fill must be within 1/2" plus or minus of required elevation and properly pitched to floor drains.
- C. Start work only when all defects have been corrected by others.

3.02 INSTALLATIONS

A. Concrete structural slab:

1. Set expansion material around building perimeter, around all column bases, and control joints lines indicated on the drawings, full depth of concrete structural slab.

NOTE: 1/2" WIDE, UNLESS OTHERWISE INDICATED, INSTALLED APPROXIMATELY 10'0" x 10'0" BUT NOT TO EXCEED 125 SQ. FT. OF INCLUDED AREAS.

2. Place reinforcement wire at mid-depth of concrete slab.
3. Place concrete and screed to an elevation of 1/2" to 3/4" below finished floor elevation, depending on size of aggregate used in topping.
4. Install expansion joints before concrete hardens.
5. Roughen surface of concrete to broom finish to ensure bond of rustic terrazzo topping.

B. Rustic terrazzo topping:

NOTE: 1/2" TO 3/4" THICKNESS DEPENDING ON SIZE OF AGGREGATE.

1. Soak substrate surface thoroughly with clean water.
2. Place rustic terrazzo.
3. 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 all laitance, and rinse immediately with clean water to remove all 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 dry, apply the sealer in accordance with manufacturer's directions for use on rustic terrazzo.

G. Caulking:

1. Place sealant in joints with backer rod as required.

H. 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 from the time that 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 CHEMICAL AND SALT ARE INJURIOUS TO PORTLAND CEMENT SURFACES AND SHOULD NOT BE USED ON RUSTIC TERRAZZO.

**NOTE: SCHEMATIC DESIGN ILLUSTRATED IN THIS SECTION IS NOT INTENDED TO INDICATE SCALE OR VERTICAL POSITION OF THE WIRE REINFORCEMENT MESH. THE LOCATION OF THE MESH NORMALLY VARIES UP AND DOWN IN THE CONCRETE UNDERBED*