

Precast Epoxy Terrazzo Specification

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Section 1 – General Information

1. OVERVIEW

- a. Precast Epoxy Terrazzo Products Include:
 - i. Precast Epoxy Terrazzo Stairs
 - ii. Precast Epoxy Terrazzo Tile
 - iii. Precast Epoxy Terrazzo Base
 - iv. Precast Epoxy Terrazzo Countertops
 - v. Precast Epoxy Terrazzo Sills
- b. Setting material, grouts, sealants and caulks
- c. Installation of precast epoxy terrazzo products

2. REFERENCES

- a. American Society for Testing and Materials (ASTM)
 - i. ASTM C-150
 - ii. ASTM C-33
 - iii. ASTM C-140
 - iv. ASTM C-293
 - v. ASTM C-1028
- b. National Terrazzo and Mosaic Association Inc. (NTMA)
- c. Federal Register Part III
 - i. 28 CFR Part 36

3. SUBMITTALS

- a. Shop Drawings
 - Submit shop drawings for all precast epoxy terrazzo materials, indicating all detail sections and profile for precast terrazzo items. Details to show reinforcing and special hardware for fastening.
- b. Samples
 - i. Samples should be submitted by 6"x6" of colors selected
 - ii. Submit two copies of NTMA maintenance literature
 - iii. Quality Assurance and Procedure Program



- c. Performance Requirements
 - i. Compressive Strength: > 10,000 p.s.i.
 - ii. Flexural Strength: > 3,000 p.s.i.
- d. Certification
 - i. Suppliers provide certification demonstrating terrazzo materials meet specification requirements

4. QUALITY ASSURANCE

- a. Follow the provisions and recommendations set by the National Terrazzo and Mosaic Association (NTMA).
- b. Manufacturer's Instructions: In addition to the NTMA's specified requirements, abide by precast manufacturer's instructions.
- c. Qualifications: Manufacturer and Trade Contractor must have a minimum of 5 years of experience on projects of similar magnitude and complexity. Manufacturer and contractor to be prequalified by architect prior to bidding. Failure to prequalify will void bid.
- d. Manufacture supply a written Quality Assurance Program and Procedure manual.

5. DELIVERY, STORAGE AND HANDLING

- a. Packaging and Shipping: Precast terrazzo to be placed on pallets and shrink wrapped. All
 deliveries received in unopened packaging with proper manufacture identification.
 Description of size, quantities, number of precast pieces, manufacturer date and
 inspector initials listed upon delivery.
- b. Storage and Protection: Store all precast items indoors. Place in climate-controlled environment, distant from other trade materials and kept away from moisture.
- c. If any damage occurs, report immediately. Bill of lading should note all damages to the product. Picture identification of damages attached.

WARRANTY

a. TERRAZZCO®/ Concord Precast products are warranted for a period of one (1) year from the date of purchase. Warranty provides that the product will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed and applied in accordance with recommendations of TERRAZZCO® & Concord Precast literature. If any product fails to meet this warranty, the liability of manufacturer will be limited to replacement of any non-conforming material if notice of such non-conformity is given to manufacturer within (1) one year from date of manufacturing. Manufacturer may in its discretion refund the price received by them in lieu of replacing the material. No customer or distributor of TERRAZZCO® or Concord Precast products is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of manufacturer. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. Manufacturer reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. MANUFACTURER OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR



Section 2 – Products

1. MANUFACTURER

- a. Acceptable Manufacturer of Precast Terrazzo
 - i. Concord Terrazzo Company, Inc.
 - ii. Clarification Note: All drawings and specifications based on proprietary literature from Concord Terrazzo Company, Inc. Other manufacturer's must comply with minimum levels of material specifications and detailing indicated on the drawings of specified herein.

b.	Applications	
	1.	Structurally Supported Stair Tread
		a. Quantity of Treads
		b. Thickness of tread with Safety Channels
	2.	Structurally Supported Stair Tread/Riser Combination
		a. Quantity of Treads
		b. Thickness of tread with Safety Channels
	3.	Self Supported Treads
		a. Quantity of Treads with Safety Channel
		b. Overall Thickness
	4. ۱	Wall Base (4' increments minimum thickness 3/8")
		a) Option A – Flat Base height
		b) Option B – Cove Base ¾" radius height
	5	Γiles - (3/8" thickness)
		a) Quantity
		b) Size (maximum size – 24" x 48") x

2. MATERIALS

- a. Epoxy Resin
- b. Aggregates: All aggregates to meet ASTM C-33 specifications, cleaned and properly graded to size. Aggregate shall be blended to meet individual project requirements.
- c. Marble chips, size to conform NTMA gradation standards.
- d. Abrasive Inserts: Consist of silicon carbide and black epoxy. Specified at one to three lines.
- e. Caulks and Sealants
 - i. Urethane or Polyurethane Sealant
 - ii. Architect's color selection based from standard color pallet.
- f. Cleaner
 - Liquid neutral chemical cleaner, with pH factor between 7 and 8, of formulation recommended by sealer manufacture for type of precast terrazzo used and complying with NTMA requirements.
- g. Sealer



 Sealers should be colorless, slip and stain-resistant with a pH level between 7 and 8. Sealer does not affect color or physical properties of precast terrazzo surfaces. Flash point (ASTM D56): minimum 80-degree Fahrenheit

3. MANUFACTURED UNITS

- a. Sizing Tolerances
 - i. All manufactured units to conform to shop drawings with 1/16" tolerance in dimension.
- b. Precast Surfaces and Edges:
 - i. All exposed edges to be ground and polished with a minimum of 1/16" bevel.
 - ii. All finished surfaces are ground and polished. Surfaces to show uniformity in matrix and aggregate.
 - iii. All precast finishes to be applied with a sealer approved by manufacturer.

Section 3 – Execution

1. INSPECTION

- a) Examine the areas where precast epoxy terrazzo will be applied
 - i) Look for any defects in the existing work to ensure that there are no issues prior to installation.
 - ii) Inspect the surface for any potential cracks.
 - iii) Inspect surface for any changes that are beyond the tolerance established for the substrate.
- b) Before installing terrazzo stair treads, make sure to correct all defects.

2. Installation

- a) Setting of Precast Terrazzo
 - Setting methods do vary by product. To set the accuracy of the work, reference approved drawings. When bonding materials, always consult the material manufacturer for proper techniques.
 - ii) Setting Methods
 - 1. Epoxy based. Contact selected manufacturer for product instructions. Setting materials can change without notice, so check for updated information before starting a project.
 - 2. Weld attachment. Please contact the manufactuer for recommended welding guidelines as provided by your structural engineer. DO NOT run a continuous weld when attaching terrazzo to avoid over-heating and cracking of the terrazzo.
 - 3. Bolt attachment. Only use bolt-in option if weld attachment cannot be used. Do not torque the bolts too tightly in order to prevent cracking of the terrazzo.
 - iii) All thinset materials requires a full setting bed applied to all surfaces, vertical or horizontal, that comes into contact with the substrate or structural base.
 - iv) Precast should be aligned straight and true to all dimensions. It may not vary more than 1/8" in length, height, or width.



- v) If needed, install anchors shown in detail.
- vi) Fill joints in between caulk or as specified.

b) Finish

- i) Clean stair treads with neutral cleaner. If there are any irregularities on the surface of the stairs, check and repair them.
- ii) Concord Terrazzo Company's precast terrazzo products contain a sealant/protector prior to packaging. It is not required to reseal the precast products prior to or after installation.
- c) Inspection/Protection:
 - i. Final inspection by owner and owner agent.
 - ii. All terrazzo work should be protected by the General Contractor.