2.01 EPOXY TERRAZZO

A. Products: Systems Overview: The basis of Design is Hi-Tek Polymers® Resin Systems Epoxy Matrix by Hi-Tek Polymers, Inc., Elgin, IL (www.hitekpolymers.com).

B. Materials:

1. Primer: T Poxy 301® Primer or T-Poxy 302® Moisture Vapor Primer (for slabs on-grade or light-weight and green concrete).

a. Physical properties of moisture mitigating primer shall have a maximum of 0.3 perms with 100% RH.

2. Flexible Reinforcing Membrane: 5001T-Poxy® Iso-Crack Epoxy Membrane, for substrate crack preparation and reflective crack reduction.

a. Reinforcement: Fiberglass scrim.

Property	**Test Method**	**NTMA Requirements**	**201T-Poxy Thin-set Epoxy Terrazzo Typical Results**
Hardness	ASTM D-2240 using Shore-D Durometer	60-85	74-85
Tensile Strength	ASTM D-638	3,000 psi min.	4,800 psi min.
Compressive Strength	ASTM D-695 Specimen B cylinder	10,000 psi min.	12,000 psi min.
Flexural Strength	ASTM D-790	Not specified	4,500 psi min.
Chemical Resistance	ASTM D-1308 seven days at room temperature by immersion method	No deleterious effects: ▪ Distilled Water ▪ Mineral Oil ▪ Isopropanol ▪ Ethanol ▪ 0.025 Detergent Solution ▪ 1% Soap Solution ▪ 10% Sodium Hydroxide ▪ 10% Hydrochloric Acid ▪ 30% Sulfuric Acid ▪ 5% Acetic Acid	No deleterious effects: ▪ Distilled Water ▪ Mineral Oil ▪ Isopropanol ▪ Ethanol ▪ 0.025 Detergent Solution ▪ 1% Soap Solution ▪ 10% Sodium Hydroxide ▪ 10% Hydrochloric Acid ▪ 30% Sulfuric Acid ▪ 5% Acetic Acid

3. Epoxy Matrix: 201T-Poxy® Epoxy Matrix and in color required for mix indicated.

   a. Physical properties without aggregates. All specimens cured for 7 days at 75°F plus or minus 2°F and 50 percent plus or minus 2 percent RH. This product shall meet the following requirements:

Property	**Test Method**	**NTMA Requirements**	**201T-Poxy Thin-set Epoxy Terrazzo Typical Results**
Flammability	ASTM D-635	Self-extinguishing, extent of burning 0. 25 inches max.	Self-extinguishing, extent of burning 0. 25 inches max.
Thermal Coefficient of Linear Expansion	ASTM D-696	$25x10^{-6}$ inches per inch per degrees to 140ºF	$25x10^{-6}$ inches per inch per degrees to 140ºF
Bond Strength	ACI COMM 403, Bulletin 59-43 (pages 1139-1141)	300 psi (100% concrete failure)	300 psi (100% concrete failure)

4. Aggregates: Marble, Glass, Mother of Pearl. Complying with NTMA gradation standards for mix indicated and containing no deleterious or foreign matter.

   a. Abrasion and Impact Resistance: Less than 40 percent loss per ASTM C 131.

   b. 24-Hour Absorption Rate: Less than 0.74 percent.

   c. Dust Content: Less than 1.0 percent by weight.

   d. Postindustrial Recycled Content: <Insert Value> percent.

5. Finishing Grout: T-Poxy® Epoxy Matrix or Hi-Tek® Clear Resin as recommended by Hi-Tek Polymers® Resin Systems.

C. Mix: Comply with NTMA's "Terrazzo Specifications and Design Guide" and manufacturer's written instructions for matrix and aggregate proportions and mixing.

1. Color and Pattern Schedule: Where the following designations are indicated, provide specified terrazzo matrices matching architect's samples:

   a. HI-TekTZ!: Color #1
   b. Hi-TekTZ2: Color #2
   c. Hi-TekTZ3: Color #3
   d. HI-TekTZ4: Color #4
   e. HI-TEKTZ5:Color #5
   f. HI-TEKZ6: Color #6

2.02 STRIP MATERIALS

A. Thin-set Divider Strips: L-type.

1. Material- color selected from manufacturer's full range .

2. Guide for commonly used L-type divider strips for Thin-set Epoxy Terrazzo Systems:

System Height	Strip Height	Strip Width
1/4" System	1/4"	16 gauge
3/8" System	3/8"	1/8"
		1/4"

B. Control-Joint Strips: Separate double L-type angles back to back with minimum 1/8" width between. Fill joint and area between strips with semi-flexible joint filler. Match material, thickness and color of divider strips and depth required for topping thickness indicated.

C. Construction-Joint (Cold-Joint) Strips: Separate double L-type angles back to back with minimum 1/8" width between. Fill joint and area between strips with semi-flexible joint filler. Match material, thickness and color of divider strips and depth required for topping thickness indicated.

D. Expansion-Joint Strips: Separate double L-type angles, positioned back to back with minimum 1/8" width between. Fill area between strips with semi-flexible joint filler. Match material, thickness and color of divider strips and depth required for topping thickness indicated.

E. Accessory Strips: Match divider strip width, material and color unless otherwise indicated. Use the following types of accessory strips as required to provide a complete installation:

1. Base-bead strips for exposed top of terrazzo base.
2. Edge-bead for exposed edges of terrazzo.

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