



SPECIFICATION

NOTE TO SPECIFIER

The purpose of this document is to provide pertinent information to a specifier in writing a specification for the use of ROCK-TRED's TERRAZZO-ROCK® Flooring. Questions regarding the selection, installation, or intended end use of ROCK-TRED materials should be directed to a ROCK-TRED technical representative. This document is prepared to be a part of a complete project specification.

PART 1 - GENERAL

1.01 Related Documents

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.

1.02 Summary

A. This Section includes all materials, accessories, labor, equipment, etc., necessary and incidental to the completion of TERRAZZO-ROCK Flooring as shown on the drawings and as specified herein.

1.03 References

ACI COM #503	Bond Strength
ASTM C 413	Test Method for Absorption of Chemical Resistant Mortars, Grouts and Monolithic Surfaces
ASTM C 531	Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical Resistant Mortars, Grouts and Monolithic Surfaces
ASTM C 579	Test Method for Compressive Strength of Chemical Resistant Mortars, Grouts and Monolithic Surfaces
ASTM C 580	Test Method for Flexural Strength and Modulus of Elasticity of Chemical Resistant Mortars, Grouts, Monolithic Surfaces and Polymer Concretes
ASTM D 635	Test Method for the Rate of Burning and/or the Extent and Time of Burning of Self Supporting Plastics in a Horizontal Position
ASTM D 638	Test Method for Tensile Properties of Plastics
ASTM D 1864	Test Method for Moisture in Mineral Aggregates
ASTM D 2240	Test Method for Rubber Property – Durometer Hardness
ASTM D 2794	Test Method for Resistance of Organic Coatings to Rapid Deformation
ASTM D 4060	Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser
ASTM D 4258	Standard Practice for Surface Cleaning Concrete for Coating
ASTM D 4259	Standard Practice for Abrading Concrete
ASTM D 4260	Standard Practice for Acid Etching Concrete
ASTM D 4262	Test Method for pH of Chemically Cleaned or Etched Concrete Surfaces
ASTM D 4263	Test Method for Capillary Moisture in Concrete by Plastic Sheet
Mil-D-3134J	Deck Covering Materials (Indentation)

1.04 System Performance Requirements

A. Provide a decorative epoxy mortar floor that, when cured, exhibits the following typical properties:

PROPERTY	TEST METHOD	RESULT
Bond Strength	ACI COM #503	400+ psi (2758 kPa) w/concrete failure
Water Absorption	ASTM C 413	0.22%
Coefficient of Thermal Expansion	ASTM C 531	$3.5 \times 10^{-5} / ^\circ\text{C}$
Compressive Strength	ASTM C 579	9,600 psi (66190 kPa)
Flexural Strength	ASTM C 580	3,600 psi (24820 kPa)
Flexural Modulus of Elasticity	ASTM C 580	2.02×10^6 psi (1.39×10^7 kPa)
Flammability	ASTM D 635	Self-Extinguishing
Tensile Strength	ASTM D 638	1,780 psi (12270 kPa)
Shore D Hardness	ASTM D 2240	88+
Impact Resistance	ASTM D4226	>160 in-lbs (18.08 Nm)
Abrasion Resistance	ASTM D 4060	85 mg
Indentation	Mil-D-3134F	None

1.05 Submittals

- A. Submit manufacturer's technical data and product literature demonstrating conformance of products with specified requirements.
- B. Submit two product samples that are representative of the color and texture of the finished floor surface.
- C. Material certificates signed by manufacturer certifying that the decorative epoxy mortar flooring submitted complies with requirements specified herein.
- D. Manufacturer's written instructions for recommended maintenance procedures.

1.06 Quality Assurance

- A. Installer Qualifications: Substrate preparation, crack and joint repair, and installation must be performed by a qualified Applicator that is "certified" by the manufacturer.
- B. Single Source Responsibility: Obtain all resin/coating and aggregate components from a single manufacturer.

1.07 Delivery, Storage and Handling

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name, directions for storage and handling, mixing instructions and lot number.
- B. Store materials in accordance with manufacturer's instructions, with seals and labels intact and legible. Maintain temperatures within the manufacturer's required range. Do not use materials that have exceeded the manufacturer's recommended shelf life.

1.08 Project Conditions

- A. Maintain minimum concrete surface temperature of 55°F (13°C) for at least 48 hours before, during and after installation until cured.
- B. Concrete must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with ground must have a properly installed, effective vapor barrier.
- C. Concrete should have been designed and installed as approved by architect/engineer to minimize random cracking, curling, slab deflections and shall contain well designed control and isolation joints as approved by architect/engineer.
- D. Concrete surface should be free of sealers or membrane curing agents.
- E. Comply with manufacturer's recommendations for maintenance of ambient temperature, moisture, humidity, ventilation and other conditions required for system installation.

F. Permanent lighting should be in place and working during the installation.

1.09 Warranty

A. The contractor shall furnish a written warranty covering materials and labor against loss of adhesion and other defects resulting from normal wear and usage for a period of two (2) years from the date of final installation.

PART 2 - PRODUCTS

2.01 Materials

A. Primer: TERRAZZO-ROCK Primer, a two component, 100% solids epoxy primer manufactured by ROCK-TRED Corporation, Skokie, Illinois.

B. Epoxy Mortar: TERRAZZO-ROCK Flooring, a three component, 100% solids, decorative epoxy resin-based floor surfacing material manufactured by ROCK-TRED Corporation, Skokie, Illinois.

C. (Optional) Grout Coat: POXI-ROCK Top Dressing, a two-component, 100% solids, thixotropic epoxy floor coating manufactured by ROCK-TRED Corporation, Skokie, Illinois.

D. (Optional) Urethane Top Coat: CHEM-THANE® WB-Urethane or CHEM-THANE WB-CRU Urethane manufactured by ROCK-TRED Corporation, Skokie, Illinois.

PART 3 - EXECUTION

3.01 Inspection

Examine substrates and conditions under which work will be performed for compliance with manufacturer's requirements for application of coating materials. Do not proceed with application until unsatisfactory conditions have been corrected.

Start of coating work will be construed as the Contractor's acceptance of surfaces within particular area.

3.02 Surface Preparation

A. The substrate must be clean, dry and sound with new concrete cured for at least 30 days at 70°F (21°C). Remove dust, laitance, grease, curing compounds, waxes, paints and loose coatings, foreign particles, and disintegrated or soft base materials. Create a surface profile on concrete by either steel shot blasting or acid etching. For more specific concrete preparation information and methods, refer to ROCK-TRED's Floor Preparation Guide.

3.03 Mixing

A. Follow manufacturer's mixing instructions for all products used.

3.04 Installation

A. General: Apply each component of the TERRAZZO-ROCK Flooring System in compliance with manufacturer's written installation instructions and strictly adhere to mixing and installation instructions, recoat windows, cure times and environmental conditions. The TERRAZZO-ROCK Flooring System can be installed directly over non-moving control joints and cracks that have been repaired/filled with ROCK-TRED's POXI-ROCK® Flooring or ELASTI-POXI® Joint Fill. The TERRAZZO-ROCK Flooring System shall terminate at the edge of isolation and expansion joints as designated by the Architect, Engineer or Design Professional. Cove base shall be installed where specified in the drawings.

B. Primer: TERRAZZO -ROCK Primer is applied at manufacturer's recommended coverage rates.

C. Epoxy Mortar: TERRAZZO-ROCK Flooring is always applied to a "wet" primed surface. The mixed mortar is immediately spread evenly over the "primed" surface using a 24" or 36" Wheeled Screed Unit. The Wheeled Screed Unit is typically set for a screed level 1/16" (.16 cm) greater than the specified thickness, i.e. 1/4" (.64 cm) for a 3/16" (.48 cm) final thickness. The TERRAZZO-ROCK Flooring is finished with a steel finishing trowel or power trowel.

D. Finished floor shall have a nominal thickness of 1/8" (.32cm) – 1/4" (.64 cm).

E. (Optional) Grout Coat: Tightly apply/spread POXI-ROCK Top Dressing with a 10-12" rubber squeegee at manufacturer's recommended coverage rates.

F. (Optional) Urethane Dressing Coat: Apply CHEM-THANE WB-Urethane or CHEM-THANE WB-CRU Urethane at manufacturer's recommended coverage rates.

G. (Optional) Cove Base: Apply cove base at floor/wall junctions at locations indicated, following manufacturer's instructions regarding taping, mixing, priming, trowelling, sanding, and top coating of cove base.

H. (Optional) Control Joints: When specified by Architect/Engineer, saw cut control joints in finished POXI-ROCK Flooring System and fill to level with ELASTI-POXI Joint Fill. Follow manufacturer's instructions regarding joint preparation, use of backer rod, taping, mixing and application of joint fill material.

3.05 Cleaning

A. At the end of each workday, remove rubbish, empty cans, rags and other discarded materials from the site. Dispose of all waste in accordance with federal, state and local regulations.

3.06 Protection

A. Protect adjacent surfaces/areas from damage resulting from work of this trade. If necessary, mask and/or cover adjacent surfaces, fixtures, equipment, etc. by suitable means.

B. Advise other trades of fixtures and fittings not to be installed until floor is cured.

C. Take necessary precautions to protect floor during installation/cure such as: caution tape, barriers, etc. If floor is to be used (by the customer or other trades) before the "full cure" time specified by the manufacturer, place masonite or other suitable covering over floor that is set to walk on but not fully cured.

RELATED DOCUMENTS:

TERRAZZO-ROCK Flooring Data Sheet

TERRAZZO-ROCK Flooring Installation Guide

POXI-ROCK Top Dressing Data Sheet

Floor Preparation Guide

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