

SECTION 09677
DECORATIVE RESINOUS FLOORING

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Decorative resinous flooring systems, specifically colored quartz as manufactured by American Industrial.
- B. Related Sections: Section(s) related to this section include:
 - 1. Concrete Substrates: Division 3 Concrete Sections.

1.02 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide resinous flooring that has been manufactured and installed to maintain performance criteria stated by manufacturer without defects, damage or failure.

1.03 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data, including manufacturer's Technical Data product sheet, for specified products, and manufacturer's installation instructions.
- C. Samples: Submit selection and verification samples for finishes, colors and textures.

1.04 QUALITY ASSURANCE

- A. Qualifications:
 - 1. Installer Qualifications: Installer experienced in performing work of this section who has specialized in installation of work similar to that required for this project.
 - a. Installer shall be an established company with at least 3 years of experience in the installation of polymer floors.
 - b. Contractor shall demonstrate the ability to undertake and complete the required work and furnish documentation regarding the successful completion of projects of similar size and complexity.
 - 2. Manufacturer Qualifications: Manufacturer shall be capable of providing technical support, qualified applicators, an approval of application methods.
- B. Preinstallation Meetings: Conduct a preinstallation meeting to verify flooring system specifications (color, texture, etc.), substrate analysis, and manufacturer's installation instructions.
- C. Preinstallation Testing: Conduct preinstallation testing as follows:
 - 1. Water Vapor Transmission: Calcium Chloride tests should be conducted to determine the amount of water vapor coming through the slab. The results should be compared to limitations set forth by the manufacturer.
 - 2. Core Sample Testing: (optional) Core samples should be taken and analyzed if the installer believes there to be a problem with the integrity of the substrate that may affect flooring system performance.

1.05 DELIVERY, STORAGE & HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with Manufacturer's ordering procedures and allow for enough lead-time for custom blends so as not to interfere with construction schedules.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials where they are protected from direct sunlight and harmful weather conditions. Meet manufacturer's condition for temperature, humidity, etc.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements/Conditions: Substrate and ambient air temperature shall be in accordance with manufacturer's requirements.
- B. Temperature Requirements: Maintain air temperature in spaces where products will be installed for time period before, during and after installation as recommended by manufacturer.

PART 2 PRODUCTS

2.01 RESINOUS FLOORING

- A. Manufacturer: American Industrial.
 - 1. Contact: 1218 West 41st Street, Suite B, Tulsa Oklahoma 74107. Phone: 918-445-0627 Fax: 918-445-0627

2.02 TERRAQUARTZ® COLORED QUARTZ FLOORING SYSTEM

- A. System Description: TerraQuartz is a decorative colored quartz polymer flooring system that is installed at a thickness of 100-120 mils, when applied using a double broadcast method. Colored quartz aggregate is broadcast into the wet basecoat to provide the color and pattern. . One or two coats of a clear, light stabilized epoxy sealcoat are applied over the cured basecoat and aggregate. An optional polyurea finish coat can then be applied to provide long-term gloss retention and color stability.
- B. TerraQuartz Components
 - 1. TQ Basecoat: A 100% solids polyamide-cured epoxy coating. The standard color is white, unless otherwise specified by owner or manufacturer's recommendation.
 - 2. TerraSeal: A 100% solids cycloaliphatic amine cured epoxy coating. Clear version is to be used as the base for the second broadcast of quartz aggregate.
 - 3. Aggregate: Blended colored quartz.
 - 4. Sealer LS: A 2 component, 100% solids cycloaliphatic cured, clear epoxy coating. Sealer LS is light stabilized through the use of hydrogenated epoxy and uV inhibitors.
 - 5. TerraThane (optional): A 2 component, 100% solids polyurea clear finish coat. Used to provide optimal uV protection and color & gloss retention.

2.03 PRODUCT SUBSTITUTIONS

- A. Substitutions: No substitutions permitted.

2.04 SOURCE QUALITY

- A. Source Quality: Obtain resinous materials, including patching and leveling materials from a single manufacturer.

PART 3 EXECUTION.

3.01 MANUFACTURER'S INSTRUCTIONS

- A. Compliance: Comply with manufacturer's product data, including product technical data sheets and application instructions.

3.02 EXAMINATION

- A. Site Verification of Conditions: Verify substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.
 - 1. Before applying materials, inspect surfaces to receive new materials and report any unsatisfactory conditions. Absence of any such report shall constitute installer's acceptance of surfaces as satisfactory for installing materials.

3.03 PREPARATION

- A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.
- B. Surface Preparation:
 - 1. Mechanical Cleaning: Concrete floor surfaces receiving polymer flooring systems shall be thoroughly cleaned and prepared by shotblasting. Areas not accessible shall be mechanically scarified.
 - 2. Patching Damaged Substrate: Holes, voids, static cracks, and other substrate surface defects should be patched and repaired according to manufacturer's recommendations.

3.04 INSTALLATION

- A. Resinous Flooring Installation: The following are abbreviated guidelines that provide for basic application steps for the installation of the systems. Detailed instructions should be obtained from the manufacturer.
 - 1. TerraQuartz System:
 - a. Priming: Priming the concrete is unnecessary unless substrate is sufficiently rough so as to require additional film build or installer believes that the substrate may present bonding problems. Prime according to manufacturer's recommendation.
 - b. Patching: Patch surface defects according to manufacturer's recommendations.
 - c. Basecoat: Apply at a rate of 100 sq. ft./gallon.
 - d. Aggregate: Colored quartz should be broadcast with 30 minutes of application of the basecoat. Broadcast quartz until basecoat will no longer accept more aggregate (approximately 50 lbs. per 100 sq. ft.)
 - e. Excess Aggregate: Once basecoat is cured, excess quartz should be removed by sweeping and/or vacuuming.
 - f. 2nd Basecoat: Apply at a rate of 90-100 sq. ft./gallon. Repeat steps d & e.
 - g. Seal Coat: Light stable sealer should be applied at an approximate rate of 85 sq. ft. per gallon. An addition coat of light stable sealer may be applied at a 150-200 sq. ft. per gallon to obtain a less aggressive texture.
 - h. Finish Coat (optional): Polyurea finish coat should be applied at a rate of 400 sq. ft. per gallon.

3.05 CLEANING

- A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance. Remove construction debris from project

site and legally dispose of debris.

3.06 PROTECTION

- A. Protection: Protect installed product and finish surfaces from damage during construction.

END OF SECTION