SECTION 09705
RESINOUS FLOORING

PART I - GENERAL

1.01 DESCRIPTION

A. Scope: Work of this Section includes all materials and installation necessary to provide resinous flooring system with integral cove base and top finish coats where shown on the drawings, as specified.

B. Related Sections include the following:

1. Division 3, Section 03300 – CAST-IN-PLACE CONCRETE

1.02 SUBMITTALS

A. Product Data: For each type of product specified.

B. Materials list: List items proposed to be provided under this section.

C. Samples for Verification: In manufacturer's standard size, but not less than 6” x 9” sections of each different color and pattern of sheet vinyl floor covering specified, showing the full range of variations expected in these characteristics.

D. Product Certificates: Submit via contractor’s transmittal, properly identified with project name, location, date, and certification of manufacturer’s and applicator's compliance with requirements of Quality Assurance Article of the Section.

E. Installer Certificates: Prior to final acceptance of the project, submit written certification that materials and workmanship in connection with the resinous flooring system have been furnished and installed in compliance with the contract documents and with manufacturer’s specifications and requirements for the flooring specified. Certification shall also contain a statement by resinous flooring manufacturer that materials furnished by it are without defect and conform to its published standards of quality.

F. Maintenance Data: Upon completion of the work required by this section, submit maintenance manuals as required. Identify project name, location, dates and types of resinous flooring system applied. Include recommendations for periodic inspections, care, and maintenance. Identify common causes of damage with instructions for temporary patching until permanent repair can be made.

1.03 QUALITY ASSURANCE

A. Furnish and install the resinous flooring system using materials and methods to ensure that the completed work will not crack, blister, and delaminate from the substrate for uses intended, will not leak water or any other liquid, will slope properly to drain off liquids, and will have the chemical resistance and physical properties as published by the manufacturer.

B. Source Limitations: Resinous flooring materials, including primers, resins, hardening agents, and finish or sealing coats shall be the products of the single manufacturer.
C. Flooring shall adhere to substrate without use of metal clips or other mechanical fastening devices.

D. Consultation with Manufacturer:
   1. Prior to execution of the work, meet with the manufacturer's technical representative, University's representative and examine the concrete surfaces and the conditions in which the flooring system will be applied.
   2. Obtain instructions and recommendations for concrete surface cleaning and preparation, flooring application techniques and appropriateness of equipment to be used, coverage and timing between material applications, cleaning methods for spills on adjacent surfaces, and special procedures for unusual circumstances.
   3. Document the instructions and recommendations in writing, and send one copy to the manufacturer’s representative and 3 copies to the University’s representative.

E. Manufacturer’s Qualifications: Manufacturer shall be regularly engaged in the manufacture of resinous flooring system material and shall be able to provide evidence of at least five successful installations in which material has been in service for at least three years.

F. Applicator’s Qualifications:
   1. Resinous flooring system shall be installed by an applicator licensed or specifically approved in writing by the specified material manufacturer. Provide proof of installer license/certification or manufacturer approval as part of the submittal process.
   2. Applicator shall be experienced in installing resinous flooring systems and shall be able to show at least three successful similar installations applied within the last three years under the applicator’s name and responsibility.

G. Sample Room:
   1. On the first day of application, meet with the manufacturer’s representative and the University’s representative to ensure the work is proceeding properly.
   2. All work shall be done in accordance with the manufacturer’s written specifications, except where more stringent requirements are indicated.
   3. Request review from the University’s representative and the manufacturer’s representative of the first finish room before proceeding with further work. After the University’s representative’s review and approval, the room shall establish the quality of work standard for the remaining resinous flooring system installation.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store products in the manufacturer’s original, unopened cartons and containers, each bearing names of product and manufacturer, Project identification, and shipping and handling instructions.
B. Provide proper facilities for handling and storage of materials to prevent damage.

C. Keep materials dry. When necessary, stack materials off ground on level flat forms fully protected from weather.

1.05 PROJECT CONDITIONS

A. Environmental Conditions: Comply with the resinous flooring manufacturer’s directions for maintenance of ambient and substrate temperatures, moisture, humidity, ventilation, and other conditions required to execute and protect the work. Prior to installing resinous flooring, rooms which are to receive the flooring shall be “climatized” by engaging the climate controls for a sufficient period to ensure that moisture which was introduced during the construction process has sufficiently dissipated.

B. Perform testing of concrete substrate for moisture content as required by the flooring manufacturer including acidity and other relevant requirements to determine suitability of substrate for application of finishes. Provide the testing results to the University’s representative prior to proceeding with the installation.

C. Lighting: Permanent lighting shall be in place and working before installing resinous flooring.

1.06 SEQUENCING AND SCHEDULING

A. Where possible and practicable, install flooring prior to installation of finished wall surfaces of other building materials which may be damaged by contact with water or slurry.

1.07 WARRANTY

A. Warranty period for this work is extended beyond normal one-year period to 5 years. Submit warranty in accordance with Division 1.

1. Warranty that the resinous flooring system will be free of defects in material and work quality and that it will not crack, blister, delaminate from the substrate, leak water or any other liquid, or otherwise fail to perform as required.

2. Locate and repair area of defective work quality, replace defective material, and remove and replace other work which has been superimposed on the defective resinous flooring. Repair and replace those portions of the building damaged as a result of the defective flooring or the repair of it.

PART II - PRODUCTS

2.01 MANUFACTURERS

A. Manufacturer’s: Crossfield Products Corp., Dex-O-Tex Industrial Cheminert K, Stonehard Inc., Stoneshield HRI; Master Builders Technologies Morritex C-11, or equal.

B. Materials: Resinous flooring and cove base. Bisphenol-A Epichlorohydrin condensate type resin formulation consisting of bond coat, base coat, texture coat, and finish coat, ¼” total thickness; flexibilized with a reactive diluent; other additives consisting of an inert color pigment, curing agent, and high SiO2 filler.
2.02 INSTALLATION ACCESSORIES
   B. Antimicrobial Additive: Antimicrobial chemical additive to prevent growth of most bacteria, fungi, algae, and actinomycetes as recommended or approved by flooring manufacturer.

2.03 FINISH
   A. Finish surface: Semi-gloss, dense, nonporous, smooth texture unless specified otherwise.
   B. Colors: Solid, as selected from the manufacturer’s standard color range.

PART III - EXECUTION

3.01 EXAMINATION
   A. Examine substrates, areas, and conditions where installation of resinous flooring will occur, with Installer present, for compliance with manufacturer’s requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.
   B. Concrete Subfloors: Verify that concrete slabs comply with the following:
      1. Slab substrates are dry and free of curing compounds, sealers, hardeners and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and conduct moisture tests recommended by floor covering manufacturer.
      2. Interior subfloor finishes comply with requirements specified in Division 3 Section “Cast-in-Place Concrete” for slabs receiving resilient flooring.
      3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
   C. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 PREPARATION
   A. General: Comply with manufacturer’s written installation instructions for preparing substrates indicated to receive resinous flooring.
   B. Use trowelable leveling and patching compounds, according to manufacturer’s written instructions, to fill cracks, holes, and depressions in substrates.
   C. Remove coatings, including curing compounds, and other substances that are incompatible with flooring adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
   D. Broom and vacuum clean substrates to be covered immediately before application. After cleaning, examine substrates for moisture, alkaline salts, carbonation, or dust. Do not proceed with installation until unsatisfactory conditions have been corrected.
### 3.03 INSTALLATION

A. General: Comply with manufacturer's written installation instructions.

B. Apply bonding coat by trowel or brush.

C. Trowel-apply flooring body coat ¼" thick minimum. Apply 2 grout coats to fill in and smooth off body coat.

D. Where flooring abuts vertical surface, extend the flooring up the vertical surface to minimum height of 6”, and feather out the last 2”, unless otherwise shown. Internal corners shall be coved; exposed edges shall eased to ⅛” radius.

E. The entire floor shall be monolithic without joints. Fill voids, indentations, and low spots with 2 grout coats with color additive. Power-sand to remove trowel marks, ridges, and protrusions.

F. Roller-apply final finish coat of the pigmented catalyst-cured resin to achieve the required texture and color.

G. Divider Strips:
   1. Install divider strips at floor material transitions.
   2. Install divider strips on each side of concrete substrate expansion joints for installation of sealant

### 3.04 PROTECTION, AdjustING, AND CLEANING

A. Permit no traffic on finish coat until flooring is completely cured.

B. Protect flooring from damage until final acceptance of the project.

C. Remove and replace scratched or damage surfaces

D. Thoroughly clean surfaces prior to final acceptance with process recommended by manufacturer.

**END OF SECTION 09705**