# SECTION 09700

# RESINOUS FLOORING (DISSIPATIVE)

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Fluid applied epoxy primer coat.

B. Fluid applied epoxy mid coat.

C. Fluid applied, static dissipative, urethane top coat.

D. **OPTION:** 2-inch integral cant or radius cove base at floor/wall intersection

### 1.2 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.

C. Selection Samples: For each finish product specified, submit two samples 4 by 4 inches in size illustrating color and texture.

D. Verification Samples: For each finish product specified, submit two samples 4 by 4 inches in size in color, chip size and variation, and matrix color, representing actual product scheduled.

### 1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications:

B. Installer Qualifications: Installation shall be performed by an applicator approved by the manufacturer of the floor surfacing materials.

C. Pre-Application Meeting: Convene a pre-application meeting two weeks before the start of application of the floor coating system. Require attendance of parties directly affecting work of this section, including the Contractor and Applicator. Review the surface preparation, application, cleaning, protection and coordination with other work.

D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
   1. Finish areas designated by Architect.
   2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
   3. Refinish mock-up area as required to produce acceptable work.

### 1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels

clearly identifying product name and manufacturer.

B. Store materials in accordance with the manufacturer's instructions.
   1. Store materials in dry, enclosed area with adequate protection from moisture.
   2. Keep containers sealed until ready for use.

C. Storage Temperature: Store between 60 degrees F (18 degrees C) and 80 degrees F (27 degrees C).

1.5 PROJECT CONDITIONS

A. Roof shall be completed and building enclosed prior to flooring commencement.

B. Maintain temperature range of between 65 degrees F (18 degrees C) and 75 degrees F (25 degrees C) 24 hours before, during, and 72 hours after installation of flooring.

C. Ventilate area where flooring is being installed, if required..

D. Provide uniform lighting of 50 fc in area of installation.

E. Restrict traffic from area where flooring is being installed or is curing, until 48 hours after completion.

1.6 WARRANTY

A. Provide 1 year warranty on labor and materials.

B. Warranty: Include coverage for delamination (separating of layers) of floor and degradation of surface finish.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:
Puma-CRETE Corp,
68 Huntington Ave
Boston, MA 02111-1929 Tel: 857-226-8247;
Email: info@PumaCRETE.net Web: www.PumaCRETE.net

B. Substitutions: Not permitted.

2.2 MATERIALS

A. **OPTION:** COVE BASE: Install 2-inch cant (45 degree) or radius cove base using thixotropic 117/107-Cove Resin system with 20/40 mesh silica filler.

B. PRIMER: PumaCRETE 104-PumaPOXY MB Apply moisture blocking primer coat at 100 sf per gal, in order to seal the substrate, and protect against concrete moisture transmission.

C. INTERMEDIATE HIGH BUILD COAT: 107-PumaPOXY high build mid coat, applied at 80 sf per gal..

D. HIGH PERFORMANCE TOP COAT: 112-PumaESD, static conductive, satin finish; 2-component, roll applied, polyurethane top coat.

FINISHES AVAILABLE: *The standard specified finish for this system is smooth #1 or #2 texture.*

1. Smooth
2. Light glass bead finish. Integral spherical glass bead in top coat.

**Acceptable Manufacturer and Product:** Resinous flooring material shall be 200c PumaESD floor system, as manufactured by PumaCRETE Corp of Boston, MA. Substitutions are not permitted.
1. Floor system shall be a 100 percent solid, pigmented urethane/epoxy resin system

2. Primer shall be moisture blocking 2-component epoxy, 104-PumaPOXY MB
3. Intermeidate Coat: high build, 20 mil coat of 2-component 107-PumaPOXY..
4. Top Coat: 112-PumaESD satin finish, high performance, 4-component, chemical resistant, polyurethane top coat.

Color as selected by Architect from manufacturers standard color range
note: Darker shades, below 50% LRV (light reflection value) recommended for best long term appearance in high traffic areas.

PART 4 EXECUTION

4.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared.

1. Verify that substrate is ready to receive work, and that sub-floor surface is clean, dry, and free of substances which could affect bond.
2. Concrete hydrostatic, capillary or moisture pressure must be no greater than **10.0 lbs**./1000 sf/24 hours. It is recommended that substrates in contact with the ground must have a properly installed, functioning and effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor emission. New concrete must cure for minimum **7 days**, and contain less than **10% moisture** when tested per ASTM D1864.
3. Maintain minimum concrete surface temperature between 60° and 80° F., and relative humidity below 80% for a minimum of 48 hours before, during , and after installation, or until cured. Surface temperature must be 5° F. above dew point.
4. Beginning work constitutes acceptance of substrate.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

4.2 PREPARATION

A. Substrate Requirements:
1. The substrate shall be clean, dry and sound. Remove all dust, laitance, grease, curing compounds, waxes, foreign particles, any previously applied potentially incompatible, loose or unsound coatings by shot-blasting or diamond grinding. If pressure washing or any other liquid method is used for preparation, substrate should be fully rinsed, squeeze-dry mopped and allowed to completely dry.
2. Concrete: New concrete should have light, steel trowelled finish, with dissipating curing compound (water based), for best results.
3. Unsound areas should be chipped out and any cracks, spalls, joints or other depressions filled with 117-PumaCOVE, Cement-All by Rapid-Set, or other equal high strength patch material or underlayment. The concrete should be at least 3500 psi. Concrete hydrostatic, capillary or moisture pressure must be no greater than **10.0 lbs**./1000 sf/24 hours.
4. Radiant Heating System: PumaCRETE floors can be installed over a radiant heating system if the following 3 conditions are met:
   a) The wires are not exposed directly to the floor material.
   b) Wires must be covered by the substrate.
   b) The radiant heat system is not more than 140 deg F at the source.

More detailed floor preparation guidelines can be found at www.pumacrete.net/resources

4.3 INSTALLATION - FLOORING

A. Apply flooring in accordance with PumaCRETE's instructions.

B. Apply coat of 104-PumaPOXY MB coating at rate of 100-200 sf per gal.

C. Apply intermediate coat of high build 107-PumaPOXY 80 sf per gal

D. Install copper ground tape.

E. Apply 112-PumaESD top coat at rate of 600 sf/gal.

F. GROUNDING: Copper ground rods may be installed by others as needed, at each column, and/or ground bars along walls. Install copper ground tape every 1000 sq ft minimum, to ensure proper earth grounding. For large rooms/areas, additional copper ground strips may be applied as needed.

Review more detailed PumaCRETE Floor installation instructions at www.pumacrete.net/resources

4.4 ELECTRICAL TESTING-

A. New flooring shall meet the following conductivity standards.

B. Perform testing per ANSI/ESD STM 7.1 to verify that the Electrostatic Discharge (ESD) Control Flooring, has a point-to-point resistance and a surface-to-ground resistance of 10e5 to 10e7 in each room, and meets ANSI/ESD S20.20

4.5 TOLERANCES- (NEW CONCRETE)

A. Maximum Variation from Flat Surface: 1/8 inch in 10 feet.

4.6 PROTECTION

A. Protect finished installation during construction.

B. Do not permit traffic over finished floor surfaces for 48 hours.

4.7 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION