

**SECTION 09830{PRIVATE }**  
**FLEXIBILIZED URETHANE EPOXY RESIN WATERPROOF MEMBRANE**  
**Miracote MiraFlor MC-5**

**PART 1.00 - GENERAL**

**1.01 GENERAL REQUIREMENTS**

- A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

**1.02 WORK INCLUDED**

- A. Work of this Section includes all labor, materials, equipment and services necessary to complete the flexibilized urethane epoxy resin Waterproof membrane system as scheduled on the drawings and/or specified herein.

**1.03 RELATED WORK**

- A. Concrete - Section 03300.  
**(Note to Specifier: Concrete should be either water cured or cured using sodium silicate curing compounds only. Other types of curing compounds are generally not acceptable. Concrete should be cured for a minimum of 28 days. On grade floors should have functioning vapor retarder beneath slab.)**
- B. Floor drains - Division 15.  
**(Note to Specifier: Floor drains, clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors by most major drain manufacturers.)**

**1.04 SUBMITTALS**

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Product Data: Submit manufacturer's technical data, application instructions and general recommendations for the flexibilized urethane epoxy resin Waterproof membrane specified herein.
- C. Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.
  - 1. Submit 2-1/2" x 4" samples of color chips from color chart selection designated by the Architect.
- D. Material certificates signed by manufacturer certifying that the flexibilized urethane epoxy resin Waterproof membrane complies with requirements specified herein.
- E. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

**1.05 QUALITY ASSURANCE**

- A. Installer Qualifications: Engage an experienced Installer or applicator who has specialized in installing resinous flooring types similar to that required for this Project and who is acceptable to manufacturer of primary materials.
- B. Single-Source Responsibility: Obtain flexibilized urethane epoxy resin Waterproof membrane

materials, including primers, resins, hardening agents, and finish or sealing coats, from a single manufacturer.

- C. Qualified Materials: Request for material approvals for any products other than the specified products must be submitted to the Architect two weeks prior to the bid, including complete application specification, physical characteristics, and chemical resistance data. Any request after this date will not be accepted. Failure of performance requires immediate removal and replacement of unapproved substituted material with those originally specified at no cost to the owner, Architect, construction manager, or general contractor.

**1.06 DELIVERY, STORAGE AND HANDLING**

- A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.
- B. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

**1.07 PROJECT CONDITIONS**

- A. Environmental Conditions: Comply with flexibilized urethane epoxy resin Waterproof membrane manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect Work.
- B. Lighting: Permanent lighting will be in place and working before installing resinous flooring.

**PART 2.00 - PRODUCTS**

**2.01 MATERIALS**

- A. Troweled flexibilized urethane epoxy resin Waterproof membrane shall be Miracote MiraFlor MC-5 Membrane as manufactured by Crossfield Products Corp., Rancho Dominguez, California and Roselle Park, New Jersey.

**2.02 PROPERTIES**

- A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.
- B. Physical Properties: Provide flooring system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

Tensile Strength	1,500 psi
Tensile Modulus	17,150 psi
Tensile Elongation	196%
Tear Strength	120 lb./in.

### **2.03 SUPPLEMENTAL MATERIALS**

- A. Finish coat: Type recommended for specific project requirements and produced by manufacturer of flexibilized urethane epoxy resin Waterproof membrane.

**Note to Specifier: Finish coat is available in choice of either urethane or epoxy coating. Consult manufacturer for recommended type).**

## **PART 3.00 - EXECUTION**

### **3.01 INSPECTION**

- A. Examine the areas and conditions where the flexibilized urethane epoxy resin Waterproof membrane is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.
- B. Evaluate level of moisture in the substrate to determine moisture levels are acceptable for application of specified flooring system.

### **3.02 PREPARATION**

- A. Substrate: Perform preparation and cleaning procedures according to flooring manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for flooring application.
- B. Concrete Surfaces: Shot-blast as required to obtain optimum bond of flooring to concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminants. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence.
- C. Materials: Mix resin hardener and aggregate when required, and prepare materials according to flooring system manufacturer's instructions.

### **3.03 APPLICATION**

- A. General: Apply each component of flexibilized urethane epoxy resin Waterproof membrane system according to manufacturer's directions to produce a uniform monolithic flooring surface of thickness indicated.
- B. Bond Coat: Apply bond coat over prepared substrate at manufacturer's recommended spreading rate.
- C. Body Coat: Over primer, trowel apply flexibilized urethane epoxy mix at nominal 5/64-inch (77 mils) thickness.
- D. Finish Coat: apply top finish coating as selected over cured and prepared body coat. Apply finish coat in two successive applications. Provide a smooth even final finish.

## **3.4 CURING, PROTECTION AND CLEANING**

- A. Cure flexibilized urethane epoxy resin Waterproof membrane materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 24 hours.

END OF SECTION