

**SECTION 07120**  
**SYNTHETIC RUBBER COMPOSITION MOISTURE TRANSMISSION BARRIER**  
**MIRACOTE Repair Mortar**

**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 installation of a negative side Synthetic Rubber resin composition moisture transmission barrier 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 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 Synthetic Rubber resin composition moisture transmission barrier specified herein.
- C. Samples  
1. Submit 2-1/2" x 4" samples of moisture transmission barrier system as designated by the Architect.
- D. Material certificates signed by manufacturer certifying that the Synthetic Rubber resin composition moisture transmission barrier system complies with requirement specified herein.

**1.05 QUALITY ASSURANCE**

- A. Installer Qualifications: Engage an experienced Installer or applicator who has specialized in installing resinous Synthetic Rubber negative side vapor barriers types similar to that required for this Project and who is acceptable to manufacturer of primary materials.
- B. Single-Source Responsibility: Obtain Synthetic Rubber resin composition 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 product 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 Synthetic Rubber resin composition moisture transmission barrier 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 Synthetic Rubber.

**PART 2.00 - PRODUCTS**

**2.01 MATERIALS**

- A. Trowel Applied Synthetic Rubber resin composition negative side moisture transmission barrier system shall be Miracote Repair Mortar as manufactured by Crossfield Products Corp., Rancho Dominguez, California; Roselle Park, New Jersey; Hinsdale, Illinois; Moss Point, Mississippi; and Tacoma, Washington.

**2.02 PROPERTIES**

- A. Physical Properties:  
Provide Synthetic Rubber system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

Compressive Strength (ASTM C-109):	5,140 psi.
Flexural Strength (ASTM C-78):	1,260 psi.
Flexural Modules of Elasticity (ASTM C 580):	2,415 psi.
Tensile Strength (ASTM C-190)	925 psi.
Shear Bond Strength (ASTM C-882)	410 psi.
Absorption (MIL-D-3134)	3.41%
Permeability (ASTM C-1202)	670 coulombs
Indentation (MIL-D-3134):	0.005" max.
Impact Resistance (Gardner Impact Tester):	No chipping, cracking, or delamination and not more than 0.14" indention
Adhesion (A.C.I. Comm. No. 503.1):	>400 psi (100% failure in concrete)

**PART 3.00 - EXECUTION****3.1 INSPECTION**

- A. Examine the areas and conditions where the Synthetic Rubber resin composition moisture transmission barrier system 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.

**3.02 PREPARATION**

- A. Substrate: Perform preparation and cleaning procedures according to Synthetic Rubber manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for Synthetic Rubber moisture transmission barrier system application.
- B. Concrete Surfaces: Shot-blast, acid etch or power scarify as required to obtain optimum bond of Synthetic Rubber 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 contaminates. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence.
- C. Materials: Mix resin catalyst and aggregate when required, and prepare materials according to Synthetic Rubber moisture transmission barrier system manufacturer's instructions.

**3.03 APPLICATION**

- A. General: Apply each component of Synthetic Rubber resin composition moisture transmission barrier system according to manufacturer's directions to produce a uniform monolithic Synthetic Rubber surface of thickness indicated.
- B. Bond Coat: Apply bond coat/primer over prepared substrate at manufacturer's recommended spreading rate.
- C. Body Coat: Over fresh bondcoat/ primer, trowel apply Synthetic Rubber mortar mix at nominal thickness as specified; hand or power trowel. When cured, sand if necessary to remove trowel marks or roughness.
- D. Seal Coat: Apply aqueous emulsion seal coat over cured Body Coat. Provide a continuous film over entire area.
- E. Finish Surface: Trowel apply Repair Mortar finish surface to achieve a tight, smooth, and even finish. When cured sand if necessary to remove trowel marks or roughness.

**3.04 CURING, PROTECTION AND CLEANING**

- A. Cure Synthetic Rubber resin composition moisture transmission barrier 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**