

SECTION 07 26 16
BELOWGRADE VAPOR RETARDERS

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Concrete Institute (ACI): 302, Guide for Concrete Floor and Slab Construction.
2. ASTM International (ASTM):
 - a. D882, Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
 - b. D1709, Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method.
 - c. E96/E96M, Standard Test Methods for Water Vapor Transmission of Materials.
 - d. E154, Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or a Ground Cover.
 - e. E1643, Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs.
 - f. E1745, Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.
 - g. F1249, Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor.

1.02 SUBMITTALS

A. Action Submittals:

1. Manufacturer's material specifications.
2. Sample: Minimum 3 inches by 3 inches.

B. Informational Submittals:

1. Manufacturer's written instructions for preparation, installation/application, repair, protection and maintenance.
2. Manufacturer's Certification of Proper Installation as specified in Section 01 67 00, Product Requirements.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in labeled packages. Store and handle in strict compliance with manufacturer's instructions. Protect from damage from weather, excessive temperature and construction operations. Remove and dispose of damaged material in accordance with applicable regulations.

PART 2 PRODUCTS

2.01 UNDERSLAB VAPOR RETARDER

- A. Manufacturers and Products:
 - 1. Fortifiber Building Systems Group; Moistop Ultra 10.
 - 2. Or equal.
- B. Physical Characteristics:
 - 1. Polyolefin film.
 - 2. Thickness: 10 mils minimum, in accordance with ACI 302.
 - 3. Width: 14-foot rolls.
- C. Functional Characteristics: None.
- D. Performance Characteristics:
 - 1. Meet or exceed ASTM E1745, Class A, with the following properties:
 - a. Water Vapor Permeance: 0.03 perm maximum when tested in accordance with ASTM E96/E96M or ASTM F1249.
 - b. Tensile Strength: 45-foot-pounds per inch minimum, when tested in accordance with ASTM D882.
 - c. Puncture Resistance: 2,200 grams minimum, when tested in accordance with ASTM D1709.

2.02 ANCILLARY MATERIALS

- A. Fasteners, Tape, Adhesive, or Sealant: As recommended by vapor retarder manufacturer.
- B. Pipe Boots: Manufacturer's recommended prefabricated or field fabricated item.

PART 3 EXECUTION

3.01 PREPARATION

- A. Examine conditions of substrates and other conditions under which work is to be performed. Do not proceed with work until satisfactory conditions are obtained.

3.02 INSTALLATION

- A. Underslab Vapor Retarder:
 - 1. Apply in accordance with manufacturer's instructions.
 - 2. After base for slab has been leveled and tamped, apply vapor retarder with roll width parallel to direction of concrete pour.
 - 3. Lap vapor retarder over footings and seal to foundation walls.
 - 4. Overlap joints 6 inches and seal with tape.
 - 5. Seal penetrations with pipe boots.
 - 6. Repair damaged areas with patches of vapor retarder, overlapping damaged area by 6 inches and sealing sides of patch with tape.

3.03 CLEANING

- A. Upon completion of vapor retarder installation, remove waste materials and debris resulting from this operation and dispose offsite.

END OF SECTION

