

**SECTION 072626**  
**BELOW-GRADE VAPOR RETARDERS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. General: Provide below-grade vapor retarders in accordance with the Contract Documents.
- B. Section Includes: Sheet materials for controlling vapor diffusion through concrete slabs on grade.
- C. Related Sections include the following:
  - 1. Division 03 Section "Cast-in-Place Concrete" for concrete slab-on-grade.

**1.2 ACTION SUBMITTALS**

- A. Product Data: For each product indicated.
  - 1. Include installation instructions for sheet vapor retarder and seaming tape.
- B. Samples for Verification: Of sheet membrane vapor retarder, 8 inches by 10 inches.

**1.3 INFORMATIONAL SUBMITTALS**

- A. Material Certificate: For vapor retarder, signed by manufacturer.
- B. Test Reports: From independent laboratory indicating compliance with specified requirements.

**1.4 QUALITY ASSURANCE**

- A. Installer Qualifications: An experienced installer who is acceptable to manufacturer, who has completed applications similar in material and extent to that required for this Project, and whose work has resulted in construction with a record of successful in-service performance.
- B. Source Limitations: Obtain vapor retarder from single manufacturer.

**1.5 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver materials in original packages, bearing manufacturer's labels indicating brand name and directions for storage.
- B. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture or other detrimental effects.

**1.6 PROJECT CONDITIONS**

- A. Environmental Limitations: Comply with manufacturer's written recommendations for substrate temperature and moisture content, ambient temperature and humidity, ventilation, and other conditions affecting materials performance.

- B. Close areas to traffic during installation and for time period after application recommended in writing by manufacturer.

## 1.7 COORDINATION

- A. Coordinate placement of sheet vapor retarder with applicable Division 03 Sections.
- B. Job Conditions: Do not install vapor retarder until below-slab fill and utility work are complete, tested, and backfilled.
- C. Coordinate installation with scheduled concrete pours to avoid delays. Make provisions for installation of work by other trades.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Sheet Vapor Retarder VB-01:
  1. Type: 15 mil polyolefin film meeting requirements of ASTM E 1745, Class A.
  2. Water Vapor Transmittance: ASTM E 154; maximum 0.011 grains per square foot per hour; Maximum perm rating of 0.027.
  3. Tensile Strength: ASTM E 154; minimum 77 lbs/in, for new material; Minimum 82 lbs/in after soaking.
  4. Puncture Resistance: ASTM D 1709, minimum 2400 grams.
  5. Tear Resistance: 7.40 pounds per foot MD per ASTM D 1004.
- B. Acceptable Products:
  1. Subject to compliance with requirements, provide one of the following:
    - a. Stego Industries, LLC; Stego Wrap Vapor Barrier.
    - b. Reef Industries; Griffolyn T-105.
    - c. Raven Industries; Vapor Block 15.
    - d. TruBarrier, Inc.; TruBarrier 15 Mil.
    - e. W.R. Meadows; Sealtight Perminator 15.
- C. Accessories:
  1. Sealing and Seaming Tape: High density polyethylene tape a minimum of 4 inches in width, compatible with vapor retarder membrane, and manufactured by or recommended by vapor retarder membrane manufacturer. Tape for joints shall have at least the same permeability rating as the vapor retarder specified.
  2. Pipe Boot: Construct pipe boots from vapor retarder material and pressure sensitive tape in accordance with manufacturer's instructions.

## PART 3 - EXAMINATION

### 3.1 PREPARATION

- A. Do not proceed until under-slab plumbing and electrical rough-in work is complete, and specified fill or subgrade material has been placed, compacted, and tested; and is smooth, level, and without voids.

### **3.2 INSTALLATION**

- A. Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
- B. Install vapor retarder without tears, voids, and holes. Lap ends and edges as recommended by manufacturer, but not less than 6 inches, over adjacent sheets. Seal laps with tape.
- C. Accurately align sheets and maintain uniform side and end laps of minimum dimensions required. Stagger end laps.
- D. Turn up sheets at perimeter, at footings and vertical walls, and against penetrations, and seal joints with tape.
- E. Seal joints, tears, holes, perimeter, and penetrations through vapor retarder with manufacturer's tape.

### **3.3 PROTECTION**

- A. Do not permit unnecessary foot or vehicular traffic on unprotected horizontal membrane.
- B. Protect completed membrane from damage. Prior to pouring concrete, inspect membrane for punctures or other damage and repair as required to maintain vapor retarder integrity.

**END OF SECTION**

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