

SECTION 071900 - UNDER-SLAB VAPOR BARRIER/RETARDER

PART 1 – GENERAL

1. SUMMARY

A. Products Supplied Under This Section

1. Vapor Barrier, seam tape, mastic, pipe boots for installation under concrete slabs.

B. Related Sections

1. Section 03300 Cast-in-place Structural Concrete
2. Section 07260 Under-Slab Vapor Retarder

2. REFERENCES

A. American Society for Testing and Materials (ASTM)

1. ASTM E 1745-97 (2004) Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.
2. ASTM E 154-88 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs.
3. ASTM E 96-95 Standard Test Methods for Water Vapor Transmission of Materials.
4. ASTM E 1643-98 Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.

B. American Concrete Institute (ACI)

1. ACI 302.1R-04 Vapor Barrier Component (plastic membrane) is not less than 10 mils thick.

3. SUBMITTALS

A. Quality Control / Assurance

1. Independent laboratory test results showing compliance with ASTM & ACI Standards.
2. Manufacturer's samples, literature.
3. Manufacturer's installation instructions for placement, seaming and pipe boot installation.

PART 2 – PRODUCTS

1. MATERIALS

A. Vapor Barrier

1. Vapor Barrier must have the following qualities:

- a. Water Vapor Transmission Rate      ASTM E 96      0.006 WVTR or lower
  - b. Water Vapor Barrier                      ASTM E 1745      Meets Class A (Plastics)
2. Vapor Barrier Products:
- a. **Stego Wrap 15-mil Vapor Barrier by Stego Industries LLC. (Basis of Design)**
  - b. Premoulded Membrane with Plasmatic Core by W.R. Meadows.
  - c. Architect approved equal prior to Bid.

## 2. ACCESSORIES

### A. Seam Tape:

1. Tape must have the following qualities:
  - a. Water Vapor Transmission Rate ASTM E 96      0.3 perms or lower
2. Seam Tape:
  - a. Stego Tape by STEGO INDUSTRIES LLC, San Juan Capistrano, CA (877) 464-7834 [www.stegoindustries.com](http://www.stegoindustries.com)

### B. Vapor Proofing Mastic:

1. Mastic must have the following qualities:
  - a. Water Vapor Transmission Rate ASTM E 96      0.3 perms or lower
2. Mastic:
  - a. Stego Mastic by STEGO INDUSTRIES LLC, San Juan Capistrano, CA (877) 464-7834 [www.stegoindustries.com](http://www.stegoindustries.com)

### C. Pipe Boots:

1. Construct pipe boots from vapor barrier material, pressure sensitive tape and/or mastic per manufacturer's instructions.

## PART 3 – EXECUTION

### 1. PREPARATION

- A. Ensure that subsoil is approved by architect or geotechnical firm:
  1. Level and tamp or roll aggregate, sand or tamped earth base.

### 2. INSTALLATION

#### A. Install Vapor Barrier/Retarder:

1. Installation shall be in accordance with manufacturer's instructions and ASTM E 1643-98.
  - a. Unroll Vapor Barrier/Retarder with the longest dimension parallel with the direction of the pour.

- b. Lap Vapor Barrier/Retarder over footings and seal to foundation walls.
- c. Overlap joints 6 inches and seal with manufacturer's tape.
- d. Seal all penetrations (including pipes) per manufacturer's instructions.
- c. No penetration of the Vapor Barrier/Retarder is allowed except for reinforcing steel and permanent utilities.
- d. Repair damaged areas by cutting patches of Vapor Barrier/Retarder, overlapping damaged area 6 inches and taping all four sides with tape.

END OF SECTION 071900