

Seaside Rehabilitation and Health Care Center
Portland, Maine

SECTION 072300 - UNDER-SLAB VAPOR RETARDERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Vapor retarder under slabs-on-grade.
- B. Related Sections:
 - 1. Division 07 Section "Building Insulation" for vapor barriers installed over building framing and for under slab insulation.

1.3 SUBMITTALS

- A. General: Submit in accordance with Division 01 Section "Submittal Procedures."
- B. Product Data: For each type of product indicated.
- C. Samples for Verification: 12-inch square units for each type of vapor retarder, indicated.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for insulation products.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Products: Subject to compliance with requirements, provide one of the products specified.

2.2 VAPOR RETARDERS FOR UNDER SLABS

- A. Vapor Retarder: ASTM E-1745, meeting or exceeding Class B and having the following qualities:
 - 1. Maximum Permeance: ASTM F 1249, not greater than 0.01 perms.
 - 2. Tensile Strength: ASTM E154 or D638, Class A – over 45 lbf/in.

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3. Puncture Resistance: ASTM E-154, Class B – over 1700 grams.
 4. Thickness of Barrier (Plastic) ACI 302.1R-96, not less than 15 mils.
 5. Products:
 - a. Stego Wrap; Stego Industries LLC.
 - b. Vaporguard; Reef Industries.
 - c. Sealtight Perminator Underslab Vapor-Mat; W.R. Meadows, Inc.
- B. Tape: High-density polyethylene tape with rubber-based pressure sensitive adhesive. Minimum 4-inch width. Provide cold weather tape for low temperature applications.
- C. Mastic: Medium viscosity, polymer-modified anionic bituminous/asphalt emulsion.
- D. Pipe Boot: Construct boots from vapor retarder material and high-density polyethylene tape per manufacturer's instruction.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for Sections in which substrates and related work are specified and other conditions affecting performance.
1. Confirm granular base is level, properly rolled or tamped.
 2. Confirm underslab insulation is in place with tight joints.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of substances harmful to vapor retarders, including removing projections capable of puncturing vapor retarders, or of interfering with attachment.

3.3 INSTALLATION, GENERAL

- A. Comply with manufacturer's written instructions applicable to products and application indicated.
- B. Extend vapor retarder in thickness indicated to envelop entire area to be covered. Cut and fit tightly around obstructions. Remove projections that interfere with placement.

3.4 INSTALLATION OF UNDER-SLAB VAPOR RETARDER

- A. Moisture vapor retarder system shall be installed at all interior floor slabs on ground and as otherwise indicated in the drawings in strict accordance with the manufacturer's printed instructions and as follows:
1. Underslab insulation shall be in place, ready to receive vapor retarder.
 2. Place vapor retarder with the longest dimension parallel with the direction of the pour.
 3. Snap chalk line along inside perimeter of foundation walls at top of slab elevation.

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4. Without wetting, clean a 3-inch wide band on the surface of the concrete below the chalk line at approximately mid-slab height. Remove dirt, residual form release, or other bond-inhibiting surface contaminants. Grind smooth any surface projections within band.
5. Lap vapor retarder on to perimeter foundation walls and vertical surfaces, sealing with continuous 1-1/2 inch wide bed of mastic.
6. Lap joints 6 inches and seal with polyethylene tape.
7. Seal pipe penetrations with pipe boot made from vapor barrier and tape, or mastic per manufacturer's detail requirements.
8. Repair damaged areas by cutting patches of vapor retarder, overlapping damaged area 6 inches and taping all four sides with polyethylene tape.

3.5 PROTECTION

- A. Protect installed vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where vapor retarders are subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 072300