



## GUIDE SPECIFICATION FOR 10 MIL UNDERSLAB VAPOR BARRIER

### PART 1 – GENERAL

#### 1.1 SUMMARY

A. Products supplied under this section:

1. Vapor barrier, seam tape, and mastic for installation under concrete slabs.

B. Related sections:

1. Section 03 30 00 Cast-in-Place Concrete
2. Section 07 26 00 Vapor Retarders

#### 1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM E 1745-09 Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.
2. ASTM E 154-99 (2005) Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
3. ASTM E 96-05 Standard Test Methods for Water Vapor Transmission of Materials.
4. ASTM F 1249-06 Standard Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor.
5. ASTM E 1643-09 Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.

B. American Concrete Institute (ACI):

1. ACI 302.2R-06 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.

#### 1.3 SUBMITTALS

A. Quality Control/Assurance:

1. Summary of test results as per ASTM E 1745.
2. Manufacturer's samples, literature, and summary of test results.
3. Manufacturer's instructions for product installation and penetration repair.

### PART 2 – PRODUCTS

#### 2.1 MATERIALS

A. Vapor Barrier/Retarder must exceed the ASTM E 1745 Class A requirements:

1. Water Vapor Permeance: ASTM F 1249 or ASTM E 96 - 0.1 Perm
2. Puncture Resistance: ASTM 1709 - 2200 grams or more



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3. Tensile Strength: ASTM D 882 - 45.0 lbf/in<sup>3</sup>
  4. Life Expectancy: ASTM E 154 Indefinite
  5. Must Be 100% Virgin Resin Polyethylene/Polyolefin
- B. Thickness: 10 mil minimum
- C. Vapor barrier products:
1. Basis of Design: Xtreme Vapor Barrier (10-mil) by Tex-Trude LP, 281.452.5961  
[www.tex-trude.com](http://www.tex-trude.com)

## 2.2 ACCESSORIES

- A. Seam tape:
1. Xtreme Seam Tape, by Tex-Trude LP, 281.452.5961 [www.tex-trude.com](http://www.tex-trude.com)
- B. Penetration Mastic:
1. Xtreme Mastic, by Tex-Trude LP, 281.452.5961 [www.tex-trude.com](http://www.tex-trude.com)

## PART 3 – EXECUTION

### 3.1 PREPARATION

- A. Ensure base material is approved by Architect or Geotechnical Engineer.
1. Level and compact base material.

### 3.2 INSTALLATION

- A. Install vapor barrier follow the guidelines of the ASTM E 1643 and/or by manufacturer's instructions.
1. Unroll vapor barrier with the longest dimension parallel with the direction of the concrete placement.
  2. Overlap joints 6 inches and seal with manufacturer's tape.
  3. Lap vapor barrier over footings and/or seal to foundation walls.
  4. Seal all penetrations (including pipes) per manufacturer's instructions.
  5. Repair damaged areas by cutting a patch of vapor barrier, overlapping damaged area 6 inches on all sides and taping all sides with seam tape or by manufacturer's recommendations.