

1.0 Product Name

Vapor Block™ 10

Underslab Vapor Retarder.

2.0 Manufacturer



Raven Industries Inc.
1812 E. Ave.
Sioux Falls, SD 57104

Engineering Assistance
Phone: 605-335-0174
Fax: 605-331-0333
www.vaporblock.com

3.0 Product Description

3.1 Basic Use:

Vapor Block™ 10 is a high performance underslab vapor retarder designed to retard moisture migration through concrete slabs-on-grade. **Vapor Block™ 10** helps to protect flooring and other moisture

sensitive furnishings in a building's interior from moisture migration. **Vapor Block™ 10** can also reduce condensation, mold and degradation by controlling water vapor migration.

3.2 Composition & Materials:

Vapor Block™ 10 is a blue, extruded, single ply, nominal 10 mil virgin polyolefin membrane.

3.3 Size:

Vapor Block™ 10 is available in 3000 sq. ft. rolls (15' X 200')

3.4 Weight:

Vapor Block™ 10 weighs approximately 49 lbs. per 1000 sq. ft.

4.0 Technical Data

4.1 Applicable Standards

American Society for Testing & Materials (ASTM)

- § ASTM E 1745 *Standard Specification for Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs*
- § ASTM E 154 *Standard Test Methods for Water Vapor Retarders used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover*
- § ASTM D 1709 *Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method*
- § ASTM E 96 *Standard Test Methods for Water Vapor Transmission of Materials*
- § ASTM D 882 *Standard Test Method for Tensile Properties of Thin Plastic Sheeting*
- § ASTM E 1643 *Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs*

Note: To the best of our knowledge, these are typical property values and are intended as guides only, not as specification limits. Raven industries makes no warranties as to the fitness for a specific use or merchantability of products referred to, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.

PROPERTIES		VAPOR BLOCK 10 (Part # VB10)	
<i>Test Results – Independent Test Facility</i>		English	Metric
Thickness, Nominal		10 mil	0.25 mm
Weight Per MSF		49 lbs	22 kg
Classification	ASTM E 1745	CLASS A, B & C	
Tensile Strength Average MD & TD (New Material)	ASTM E 154 Section 9	52 lbs/in	230 N
Tensile Strength Average MD & TD (After Soaking)	ASTM E 154 Section 9	55 lbs/in	240 N
Puncture Resistance (New Material)	ASTM D 1709 Method B	2600 g	
Maximum Use Temperature		180° F	82° C
Minimum Use Temperature		-70° F	-57° C
Permeance (New Material)	ASTM E 154 Section 7 ASTM E 96 Procedure B	0.036 U.S. Perms	0.024 Metric Perms

4.2 Environmental Considerations:

Vapor Block™ 10 can be used as a radon gas retarder.

4.3 Physical Properties

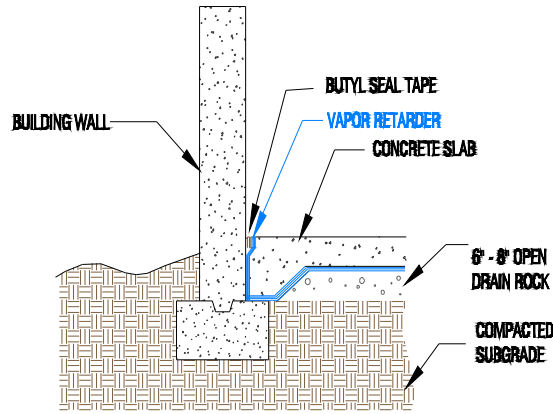
Vapor Block™ 10 was tested in accordance with ASTM procedures by TRI/Environmental, Inc. of Austin, TX.

Vapor Block™ 10 meets and exceeds Class "A", Class "B" and Class "C" Performance Classes per ASTM E 1745.

5.0 Installation

VAPOR BLOCK PLACEMENT

- 5.1 Level and tamp or roll granular base as specified by your architectural or structural drawings.
- 5.2 Unroll **Vapor Block™ 10** with the longest dimension parallel with the direction of the pour and pull out the folds to the 15' width.
- 5.3 Lap **Vapor Block™ 10** over the footings and seal to the vertical foundation walls with two-sided Raven Butyl Seal tape. Seal around sewer pipes, support columns or any other penetration with Raven Vapor Boot System or at minimum a combination of Vapor Block and Vapor Bond tape creating a monolithic membrane between the surface of the slab and moisture sources below and at the slab perimeter.
- 5.4 Holes or openings through **Vapor Block™ 10** should be effectively sealed with an elastomeric sealant to maintain the integrity of the vapor retarder. Overlap joints a minimum of 6 inches and seal overlap together with Raven Vapor Bond tape.



PROTECTION

- 5.5 When installing reinforcing steel and utilities in addition to the placement of concrete, take precaution to protect **Vapor Block™ 10**. Carelessness during installation can damage the most puncture-resistant retarder. Provide for additional protection in high traffic areas.
- 5.6 Use only brick-type reinforcing bar supports to protect **Vapor Block™ 10** from puncture.
- 5.7 Avoid driving stakes through **Vapor Block™ 10**. If this cannot be avoided, each individual hole must be repaired.
- 5.8 If a cushion or blotter layer is required in the design between the vapor retarder and the slab, additional care should be given if sharp crushed rock is used. Washed rock will provide less chance of damage during placement.

*(These are very general installation instructions. Instructions on architectural or structural drawings should be reviewed & followed as well. Detailed installation instructions accompany each roll of **Vapor Block**. ASTM E 1643 also provides valuable installation information.)*

6.0 Availability & Cost

Vapor Block™ 10 is sold through construction supply houses across the United States and Canada.

Vapor Block™ 10 current cost information can be obtained by calling our corporate sales office @ 800-635-3456

7.0 Warranty

To the best of our knowledge, the specification chart on page one lists typical property values and are intended as guides only, not as specification limits. RAVEN INDUSTRIES MAKES NO WARRANTIES AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.

8.0 Maintenance

Once **Vapor Block™ 10** is installed, no maintenance is required.

9.0 Technical Services

Technical Information and detailed test results can be obtained by calling our corporate office @ 800-635-3456.

10.0 Filing Systems

§ Additional Information is available from the manufacturer.