

# VAPORBLOCK®PLUS™VBP20

UNDER-SLAB VAPOR / GAS BARRIER



#### **APPLICATIONS**

- Radon Barrier
- ▶ Methane Barrier
- VOC Barrier
- ▶ Under-Slab Vapor Retarder
- Foundation Wall Vapor
- Retarder

### PRODUCT DESCRIPTION

VaporBlock® Plus™ 20 is a seven-layer co-extruded barrier made from state-of-the-art polyethylene and EVOH resins to provide unmatched impact strength as well as superior resistance to gas and moisture transmission. VaporBlock® Plus™ 20 is a highly resilient underslab / vertical wall barrier designed to restrict naturally occurring gases such as radon and/or methane from migrating through the ground and concrete slab. VaporBlock® Plus™ 20 is more than 100 times less permeable than typical high-performance polyethylene vapor retarders against Methane, Radon and other harmful VOCs.

VaporBlock® Plus™ 20 is one of the most effective underslab gas barriers in the building industry today far exceeding ASTM E-1745 (Plastic Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs) Class A, B and C requirements. Available in a 20 (Class A) mil thicknesses designed to meet the most stringent requirements. VaporBlock® Plus™ 20 is produced within the strict guidelines of our ISO 9001:2008 Certified Management System.

#### **PRODUCT USE**

VaporBlock® Plus™ 20 resists gas and moisture migration into the building envelop when properly installed to provide protection from toxic/harmful chemicals. It can be installed as part of a passive or active control system extending across the entire building including floors, walls and crawl spaces. When installed as a passive system it is recommended to also include a ventilated system with sump(s) that could be converted to an active control system with properly designed ventilation fans.

VaporBlock® Plus™ 20 works to protect your flooring and other moisture-sensitive furnishings in the building's interior from moisture and water vapor migration, greatly reducing condensation, mold and degradation.

#### SIZE AND PACKAGING

VaporBlock® Plus™ 20 is available in 10' x 150' rolls to maximize coverage. All rolls are folded on heavy-duty cores for ease in handling and installation. Other custom sizes with factory welded seams are available based on minimum volume requirements. Installation instructions and ASTM E-1745 classifications accompany each roll.







## **VAPORBLOCK®**

#### **SPECIFICATIONS** VAPORBLOCK® PLUS™ 20 **TEST METHOD IMPERIAL PROPERTIES METRIC** Appearance White/Gold Thickness, Nominal 20 mil 0.51 mm Weight 102 lbs/MSF 498 g/m<sup>2</sup> Classification **ASTM E 1745** CLASS A, B & C **ASTM E 154** <sup>3</sup> Tensile Strength 58 lbf 102 N (D-882) **ASTM D 1709** 2600 g Impact Resistance **ASTM E 154** Section 7 0.0098 Perms 0.0064 Perms Permeance (new material) grains/(ft²·hr·in·Hg) ASTM E 96 g/(24hr·m²·mm Hg) Procedure B **ASTM E 154** 0.00790.0052 Section 8, E96 Permeance (after conditioning) 0.0079 0.0052 Section 11, E96 (same measurement as above 0.0097 0.0064 permeance) Section 12, E96 0.0113 0.0074 Section 13, E96 ASTM E 96 0.0040 0.0028 **WVTR** grains/hr-ft² Procedure B gm/hr-m² Benzene Permeance See Note 6 1.57E-10 m/s See Note 6 Toluene Permeance 2.18E-10 m/s See Note 6 Ethylbenzene Permeance 1.71E-10 m/s M & P-Xylenes Permeance See Note 6 1.62E-10 m/s O-Xylene Permeance See Note <sup>6</sup> 1.53E-10 m/s Radon Diffusion Coefficient K124/02/95 < 1.1 x 10<sup>-13</sup> m<sup>2</sup>/s

180° F

- 70° F

Methane Permeance

Maximum Stat ic Use

Temperature

Minimum Stat ic Use

Temperature

Permeation of Volatile Organic Compounds through EVOH Thin Film Membranes and Coextruded LLDPE/EVOH/LLDPE Geomembranes, McWatters and Rowe, Journal of Geotechnical and Geoenvironmental Engineering® ASCE/September 2015. (Permeation is the Permeation Coefficient adjusted to actual film thickness)

#### VaporBlock® Plus™ Placement

All instructions on architectural or structural drawings should be reviewed and followed. Detailed installation instructions accompany each roll of VaporBlock® Plus™. ASTM E-1643 also provides general installation information for vapor retarders.

VaporBlock<sup>®</sup> Plus<sup>™</sup> is a seven-layer co-extruded barrier made using high quality virgingrade polyethylene and EVOH resins to provide unmatched impact strength as well as superior resistance to gas and moisture transmission.

**NOTE:** The information provided herein is based upon data believed to be reliable. All testing is performed in accordance with ASTM standards and procedures. All values are typical and nominal and do not represent either minimum or maximum performance of the product. Although the information is accurate to the best of our knowledge and belief, no representation of warranty or guarantee is made as to the suitability or completeness of such information. Likewise, no representation of warranty or guarantee, express or implied, or merchantability, fitness or otherwise, is made as to product application for a particular use.

82° C

- 57° C

3.68E-12 m/s

Gas Transmission Rate (GTR): 0.32 mL/m²•day•atm

RI.070116.020618



800.747.6095 760.747.6095



Inquiries@americover.com www.americover.com

**ASTM D 1434** 



<sup>&</sup>lt;sup>3</sup> Tests are an average of machine and transverse directions.

<sup>6</sup> Aqueous Phase Film Permeance.