PRODUCT DATA

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W. R. MEADOWS® SEALTIGHT®

MAY 2018
(Supersedes July 2017)

PERMINATOR® EVOH

Underslab Gas Vapor Barrier

DESCRIPTION

PERMINATOR EVOH is a seven-layer co-extruded barrier manufactured from state-of-the-art polyethylene and EVOH resins. Designed to provide superior resistance to gas and moisture transmission, PERMINATOR EVOH is a highly resilient underslab gas/vapor barrier designed to restrict naturally occurring gases, such as radon, methane, gasoline, solvents, oils, and hydrocarbons, from migrating through the ground and into the concrete slab.

USES

When properly installed, PERMINATOR EVOH resists gas and moisture migration into the building envelope 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. PERMINATOR EVOH protects flooring and other moisture-sensitive furnishings in the building's interior from moisture and water vapor migration, greatly reducing condensation, mold, and degradation.

FEATURES/BENEFITS

- Resistant to gasoline, oils, solvents, hydrocarbons, radon, and methane.
- Available in 150' (45.7 m) long rolls.
- Helps reduce the penetration of moisture and water vapor through the slab into the structure.
- Helps reduce fungus, mildew, and mold.
- Tough enough to withstand normal construction jobsite conditions and traffic … will not crack, puncture, snag, split, or tear easily.
- Seven-layer construction with EVOH gas barrier core.

PACKAGING

10' (3 m) x 150' (45.7 m) Rolls

SPECIFICATIONS

- Meets or exceeds all requirements of ASTM E 1745-11 Class A, B & C.

APPLICATION

Surface Preparation … Level, tamp, or roll earth or granular material beneath the slab base as specified by supplied architectural drawings. Follow ASTM E-1643-10 (standard practice and procedure for installation of vapor retarder used in contact with earth or fill under concrete slabs). Reference American Concrete Institute (ACI) 302.1R-15 Section 6.1.4 – Base Material for sub-grade preparation prior to placement of PERMINATOR.

Horizontal Application … Unroll 150' (45.7 m) PERMINATOR EVOH over the area where the slab is to be poured. Cut to size if necessary. PERMINATOR should completely cover the pour area. All joints/seams, both side and end, should be overlapped 12" (304.8 mm) and taped using 4" (101.6 mm) wide PERMINATOR EVOH TAPE. (Note: The PERMINATOR EVOH TAPE area of adhesion should be free from dust, dirt, and moisture to allow maximum adhesion of the pressure-sensitive tape.) To ensure placement of laps, PERMINATOR BUTYL TAPE should be used underneath the overlap area to hold membrane in place as PERMINATOR EVOH TAPE is applied.

The most efficient installation method includes placing PERMINATOR EVOH on top of the footing and against the vertical wall. This will sandwich PERMINATOR EVOH between the footing, vertical wall, and poured concrete floor. This will help protect the concrete slab from external moisture sources once the slab has been placed.

Before placing concrete slab, make sure all penetrations, block outs, and damaged areas are repaired/addressed. For detailed information on detailing penetrations, such as pipe clusters, please refer to INSTALLATION GUIDELINES: PERMINATOR EVOH PENETRATIONS available at www.wrmeadows.com.

Numerous municipal building codes do not allow the placement of vapor barriers over the footing, due to breaking of the bond between the wall and footing. Although this is not an optimal application method, W. R. MEADOWS approves this alternate method when required by building code.

CONTINUED ON REVERSE SIDE…

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TECHNICAL DATA

Properties	Test Method	Result
Appearance		White/Green
Thickness, Nominal		20 Mil (0.51 mm)
Weight		102 lb./MSF (498 g/m^2)
Classification	ASTM E 1745	Class A, B, and C
Tensile Strength	ASTM E 154, Section 9, (D-882)	58 lbf (102 N)
Impact Resistance	ASTM D 1709	2600 g
Permeance (New Material)	ASTM E 154, Section 7 ASTM E 96, Procedure B	0.0098 Perms grains/(ft²·hr·in·Hg) [0.0064 Perms g/(24hr·m²·mm Hg)]
Permeance (After Conditioning) (Same Measurement as Above Performance)	ASTM E 154 Section 8, E96 Section 11, E96 Section 12, E96 Section 13, E96	 0.0079 (0.0052) 0.0079 (0.0052) 0.0097 (0.0064) 0.0113 (0.0074)
WVTR	ASTM E 96 Procedure B	0.0040 grains/hr-ft² (0.0028 gm/hr-m²)
Benzene Permeance	Aqueous Phase Film Permeance	1.57E-10 m/s
Toluene Permeance	Aqueous Phase Film Permeance	2.18E-10 m/s
Ethylbenzene Permeance	Aqueous Phase Film Permeance	1.71E-10 m/s
M & P Xylenes Permeance	Aqueous Phase Film Permeance	1.62E-10 m/s
O Xylene Permeance	Aqueous Phase Film Permeance	1.53E-10 m/s
Perchloroethylene (PCE)	Aqueous Phase Film Permeance	1.5 x 10^{-9} m/s
Trichloroethylene (TCE)	Aqueous Phase Film Permeance	2.4 x 10^{-9} m/s
Radon Diffusion Coefficient	K124/02/95	< 1.1 x 10^{-13} m^2/s
Methane Permeance	ASTM D 1434	3.68E-^{12} m/s Gas Transmission Rate (GTR): 0.32 mL/m²•day•atm
Maximum Static Use Temperature		180° F (82° C)
Minimum Static Use Temperature		-70° F (-57° C)

LEED INFORMATION

May help contribute to LEED credits:

- EAp2: Minimum Energy Performance
- EAc2: Optimize Energy Performance
- MRc9: Construction and Demolition Waste Management

For CAD details, most current data sheet, further LEED information, and SDS, visit www.wrmeadows.com.

LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

Disclaimer

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