ABSOLUTE BARRIER® X60BAL

HIGH PERFORMANCE HDPE/EVOH GEOMEMBRANE GAS BARRIER

Viaflex

PRODUCT DESCRIPTION

Absolute Barrier® X60BAL is a seven-layer co-extruded geomembrane consisting of a durable high-density polyethylene (HDPE) with an inner core of highly effective EVOH barrier resin, designed specifically as a barrier against odors, methane, radon, and VOCs. High strength HDPE provides excellent chemical resistance and durability. The combination of these premium resins provide unequaled barrier performance in demanding buried applications.

PRODUCT USE

Absolute Barrier® X-Series is designed to stop gas vapor migration on Brownfield sites, in residential and commercial buildings, along with geomembrane containment covers and systems for effective odor control. When installed under concrete slabs as a gas barrier, a passive system is recommended to include a ventilated system with sump(s) that could be converted to an active control system with properly designed ventilation fans.

Absolute Barrier® performs extremely well preventing the degradation of EPS geofoam by protecting it from harsh VOCs including direct gasoline or diesel fuel contact.

Absolute Barrier® X60BAL is effective in buried landfill cap applications and are 50 to 400 times less permeable to VOCs than standard 80 mil HDPE geomembranes. Leachate contaminants and landfill odors/gases in municipal and hazardous waste landfills can migrate through standard HDPE contributing to both atmospheric and groundwater contaminations. Absolute Barrier® X-Series provides an effective barrier against a wide range of VOCs including benzene, toluene, trichloroethylene, percloroethylene, and many others.

SIZE & PACKAGING

Absolute Barrier® X60BAL is available in 16' wide layflat rolls in various lengths. All panels are tightly rolled onto a heavy-duty core for ease of handling and time saving installation. Absolute Barrier® geomembranes are produced in the color black as standard and can be manufacturered in other custom colors with minimum quantity order requirements.

Brownfield Containment Liner

PRODUCT	PART #
ABSOLUTE BARRIER®	X60BAL

APPLICATIONS

- Odor Control Barrier
- EPS Geofoam Protection
- Buried Landfill Cap
- Temporary Landfill Gas Cover
- Floating Gas Cover
- Underslab VOC Barrier
- Underslab Radon Barrier
- Underslab Methane Barrier
- Underslab Vapor Barrier
- Remediation Cover / Liner
- Leachate Collection Ponds
- Interim Landfill Covers

Absolute Barrier®

THE ULTIMATE IN GAS CONTAINMENT

ABSOLUTE BARRIER® X60BAL

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		ABSOLUTE BARRIER® X60BAL			
		IMPERIAL		METRIC	
PROPERTIES	TEST METHOD	MINIMUM	TYPICAL	MINIMUM	TYPICAL
Appearance		Black		Black	
Thickness	ASTM D5199	60 Mil Average	60 Mil Nominal	1.52 mm Average	1.52 mm Nominal
Weight		302 lbs/msf		1474 g/m^2	
Density	ASTM D792	-	-	0.94 g/cm^3	0.95 g/cm^3
Tensile Strength at Yield	ASTM D6693	126 lbs/in	180 lbs/in	221 N/cm	315 N/cm
Tensile Strength at Break	ASTM D6693	90 lbs/in	132 lbs/in	158 N/cm	231 N/cm
Tensile Elongation at Yield	ASTM D6693	12 %	15 %	12 %	15 %
Tensile Elongation at Break	ASTM D6693	350 %	430 %	350 %	430 %
Tear Strength	ASTM D1004	42 lbs	50 lbs	187 N	222 N
Puncture Resistance	ASTM D4833	108 lbs	145 lbs	480 N	645 N
Oxidation Induction Time (OIT) or High Pressure OIT (HPOIT)	ASTM D3895 ASTM D5885	100 min 400 min	200 min -	100 min 400 min	200 min -
Carbon Black Content [7]	ASTM D4218	2.0 %	2.3 %	2.0 %	2.3 %
Carbon Black Dispersion	ASTM D5596	Pass			
Stress Crack Resistance	ASTM D5397	500 hrs	> 1800 hrs	500 hrs	> 1800 hrs
Benzene Permeance	See Note [6]	3.40 x 10^{-10} m^2/sec or 1.21 x 10^{-13} m/s			
Toluene Permeance	See Note [6]	4.72 x 10^{-10} m^2/sec or 4.86 x 10^{-14} m/s			
Ethylbenzene Permeance	See Note [6]	3.70 x 10^{-10} m^2/sec or 1.11 x 10^{-14} m/s			
M & P-Xylenes Permeance	See Note [6]	3.50 x 10^{-10} m^2/sec or 1.27 x 10^{-14} m/s			
O-Xylene Permeance	See Note [6]	3.31 x 10^{-10} m^2/sec or 1.14 x 10^{-14} m/s			
Methane Permeance	ASTM D1434	< 2.46 x 10^{-13} m/s			
Trichloroethylene (TCE)	See Note [6]	2.30 x 10^{-10} m^2/sec or 3.50 x 10^{-15} m/s			
Perchloroethylene (PCE)	See Note [6]	2.17 x 10^{-10} m^2/sec or 3.48 x 10^{-15} m/s			
Cold Temperature Impact	ASTM D746	-40° F		-40° C	
Maximum Static Use Temperature		180° F		82° C	

[6] Aqueous Phase Film Permeance.
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 - calculated at 1 kg/m^3.)
The study used to determine PCE and TCE is titled: Evaluation of diffusion of PCE & TCE through high performance geomembranes by Di Battista and Rowe, Queens University 8 Feb 2018.

[7] No carbon black in barrier layers.

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Scan QR Code to download technical data sheets.

Note: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. Chemical resistance, odor transmission, longevity as well as other performance criteria is not implied or given and actual testing must be performed for applicability in specific applications and/or conditions. VIAFLEX 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. Limited Warranty available at www.viaflex.com

VIAFLEX, INC.
821 W Algonquin Street Sioux Falls, SD 57104
Ph: +1 (605) 335-0174 • TF: +1 (800) 635-3456

sales@viaflex.com
www.viaflex.com

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