

VAPORFLEX® PREMIUM - GEOMEMBRANE

Layfield VaporFlex® Premium geomembrane liners act as a vapor barrier system that can restrict naturally occurring gases and volatile organic compounds (VOCs) from migrating through the ground and concrete slab.

This seven-layer co-extruded barrier is made from state-of-the-art polyethylene and EVOH resins, providing unmatched impact strength and superior gas and moisture transmission resistance. VaporFlex® is up to 100 times less permeable than typical high-performance polyethylene vapor retarders against Methane, Radon, and other harmful VOCs, allowing you to construct healthy and safe buildings.

April 2023		VaporFlex® Premium		
Material Properties	Rev	ASTM	VaporFlex® Premium 30 mil	VaporFlex® Premium 40 mil
	Thickness	D5199	30 mil 0.75 mm	40 mil 1.0 mm
	Sheet Density (minimum)	D792	≤ 0.939 g/cc	≤ 0.939 g/cc
	Melt Flow Index, g/10min. 190°C	D1238	≤ 1.0	≤ 1.0
	Tensile Strength at Break (min. avg)	D638	99 ppi 17 N/mm	128 ppi 22 N/mm
	Elongation at Break	D6693	450%	450%
	Tear Resistance (min.avg)	D1004	18 lbs 80 N	27 lbs 120 N
	Puncture Resistance (min. avg)	D4833	67 lbs 300 N	90 lbs 400 N
	Carbon Black Content	D4218	2-3%	2-3%
	Carbon Black Dispersion	D5596	Categories 1-2	Categories 1-2
	Oxidative Induction Time	D3895	100 mins	100 mins
	Methane Permeability	ISO 15105	12 cm ³ .m ² .day 1.2x10 ⁻⁵ m ³ .m ² .day	12 cm ³ .m ² .day 1.2x10 ⁻⁵ m ³ .m ² .day
	Solvent Vapor Permeability			
	Benzene	D814	< 5x10 ⁻¹⁴ m/s	< 5x10 ⁻¹⁴ m/s
	Toluene	D814	< 5x10 ⁻¹⁴ m/s	< 5x10 ⁻¹⁴ m/s
Ethylbenzene	D814	< 5x10 ⁻¹⁴ m/s	< 5x10 ⁻¹⁴ m/s	
P-Xylene	D814	< 5x10 ⁻¹⁴ m/s	< 5x10 ⁻¹⁴ m/s	
O-Xylene	D814	< 5x10 ⁻¹⁴ m/s	< 5x10 ⁻¹⁴ m/s	

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For up-to-date technical information, be sure to visit us online at www.LayfieldGroup.com

April 2023

GeoFlex™ Seam Strengths

Style	Geosynthetics Research Institute	VaporFlex® Premium 30 mil	VaporFlex® Premium 40 mil
Hot Wedge Seams Shear Strength	GRI GM19	25 lb/in	30 lb/in
Hot Wedge Seams Peel Strength	GRI GM19	20 lb/in	25 lb/in

INSTALLATION

Where appropriate, install VaporFlex® Premium in accordance with ASTM E 1643. The subgrade needs to be compacted and graded per the project's plans & specifications. VaporFlex® Premium needs to be protected from damage during the installation of the reinforcing steel, utilities and during the concrete pour. In the event a repair is required on the VaporFlex® Premium as a result of damage, ensure the repair patch material is the same VaporFlex® Premium material. All repair patches must have round edges and overlap the repair area by a minimum of 150mm (6").

VaporFlex® Premium geomembrane is flexible enough to be prefabricated at our facility into large panels. The prefabricated panel is accordion folded, rolled on a core, and delivered to the job site secured to a pallet. Prefabricated panels can often cover a small project with a single panel.

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