



Vapor Sentinel™ 20 MIL VAPOR BARRIER

MANUFACTURER

Vapor Products Group
W51N535 Struck Lane
Cedarburg, WI 53012 USA
(888) 355-1522

DESCRIPTION

USES: Vapor Sentinel 20-Mil Vapor Barrier is a sub-slab barrier.

COMPOSITION: Made with the highest grade of prime, virgin, polyolefin resins, Vapor Sentinel 20-Mil Vapor Barrier is manufactured as a multi-layer plastic extrusion.

ENVIRONMENTAL FACTORS: Vapor Sentinel 20-Mil Vapor Barrier is used in systems for the control of soil gases (radon, methane), soil poisons (oil by-products), volatile organic compounds (VOCs), and sulfates.



TECHNICAL DATA

TABLE 1: PHYSICAL PROPERTIES OF VAPOR SENTINEL 20-MIL VAPOR BARRIER

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 Class A, B & C - Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	Exceeds Class A, B & C
Water Vapor Permeance	ASTM F1249 - Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	<0.01 perms
Permeance After Conditioning (ASTM E1745 Sections 7.1.2 - 7.1.5)	ASTM E154 Section 8, F1249 - Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 - Permeance after heat conditioning ASTM E154 Section 12, F1249 - Permeance after low temperature conditioning ASTM E154 Section 13, F1249 - Permeance after soil organism exposure	0.0088 perms 0.0081 perms 0.0084 perms 0.0077 perms
Diffusion Coefficient	Benzene Toluene Ethylbenzene M&P Xylenes O-Xylene TCE PCE	<3.2 x 10 ⁻¹³ m ² /s <2.1 x 10 ⁻¹³ m ² /s <1.3 x 10 ⁻¹³ m ² /s <1.4 x 10 ⁻¹³ m ² /s <1.2 x 10 ⁻¹³ m ² /s <2.7 x 10 ⁻¹³ m ² /s <1.5 x 10 ⁻¹³ m ² /s
Methane Transmission Rate	ASTM D1434 - Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting	<144 GTR* (mL(STP)/m ² *day)
Radon Diffusion Coefficient	K124/02/95	<8.4 x 10 ⁻¹² m ² /second
Puncture Resistance	ASTM D1709 - Test Method for Impact Resistance of Plastic Film by Free-Falling Dart Method	3500+ grams**
Tensile Strength	ASTM D882 - Test Method for Tensile Properties of Thin Plastic Sheeting	97.7 lbf/in
Thickness		20 mil
Roll Dimensions		width x length: 14' x 105' area: 1470 ft ²
Roll Weight		150 lb
Roll Color		Orange

Note: perm unit = grains/(ft²*hr*in-Hg)

*GTR = Gas Transmission Rate

**The material maxed out the testing equipment and did not fail at 3746 grams.



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INSTALLATION

SUB-SLAB: Vapor Sentinel™ 20-Mil Vapor Barrier is unrolled over an aggregate, sand or tamped base. All seams overlap a minimum of 6 inches for taped-seam installation and 3 inches when seamed via heat welding equipment by a qualified contractor. Using a combination of Vapor Sentinel™ barrier and tape, all penetrations must be sealed as well. For additional information, please contact Vapor Products Group.

MAINTENANCE

None required.

TECHNICAL SERVICES

Technical advice, custom CAD drawings, and additional information can be obtained by contacting an authorized Vapor Sentinel™ distributor.

AVAILABILITY & COST

Vapor Sentinel 20-Mil Vapor Barrier is available directly through Vapor Products Group or our exclusive distributors. Contact your local Vapor Sentinel distributor for cost information.

WARRANTY

To the best ability, Vapor Products Group regards specifications and recommendations as accurate and reliable. However project site conditions are not within Vapor Product Groups control and does not guarantee results from the use of the information provided. Limited warranty that the product is free from defects in material and workmanship and is consistent with the technical specifications provided.



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