

Underseal® Underslab Membrane

Product Overview



Underseal® Underslab Membrane is a tough, 85-mil pre-concrete pour waterproofing membrane/vapor barrier designed to virtually eliminate water and vapor transmission through concrete slabs & elevator pits. In addition to protecting floor finishes and indoor air quality, Underseal® Underslab Membrane also acts as a barrier to methane and radon gas.

Underseal® Underslab Membrane provides a continuous seal underneath the foundation slab. A strong mechanical bond is developed between the membrane and concrete at the time of pouring as the concrete intermingles with the fibers of the nonwoven geotextile. A strong adhesive bond is created when the static load and thermal reactive heat of the concrete slab causes sealant/adhesive compound to have an intimate contact with the concrete surface preventing water migration. Underseal® Underslab Membrane is typically installed horizontally over a prepared subbase such as compacted soil, mud slab or #57 stone. 85 mil Underseal® Underslab can also be used in vertical applications.



Lasting Durability: Tough 3-layer composite membrane - Technology that has stood the test of time.



Outstanding Puncture Resistance: 2 times higher than the new AC 527 requirement - Better protection against backfill damage.



Strong Mechanical Bond: Our inner fibrous layer embeds itself into the cured concrete creating a very strong mechanical bond - ensures our waterproofing system staying in place.



Resistant to Water Migration: An adhesive bond is created when heat from the concrete wall while curing, causes our compound to melt onto the concrete's positive side surface creating a continuous sealed structure.



Jobsite Adaptability: Flexible material that adapts to job site irregularities for ease of installation.



Superior Joints: Strong laps seams create a long lasting, water tight system - Outperforms the new AC 527 standard (ASTM 1876) by more than 150%.



Crack Protection: Is thicker than most non-asphalt based competitive products which gives it the stress-absorbing and elongation properties to maintain a watertight seal if cracks develop in the base material or the slab.



Helps Manage Harmful Gases: Acts as a barrier against toxic contaminants methane and radon gas, which may attempt to enter the structure through cracks in the concrete.

Property	Test Method	Typical Value
Film Color		Black/White
Membrane Thickness	ASTM D 1000	85 mils
Tensile Strength	ASTM D 4632	80 lbs.
Tensile Strength – Film	ASTM D 412	4250 PSI
Hydraulic Transmissivity of a Geosynthetic Using a Constant Head	ASTM D 4716	No measurable flow
(In-plane) Hydraulic Transmissivity of a Geosynthetic by Radial Flow	ASTM D 6574	No water flow
Breaking Strength of 1" Width Sample Polyethylene Geomembrane Layer	ASTM D 882	5470 PSI
Elongation – Ultimate Failure of Rubberized Asphalt Compound	ASTM D 412	> 460%
Permeance to Water Vapor Transmission	ASTM E 96 Method B	0.01 perms
Crack Cycling	ASTM C 836 Tested @ -15°F	No effect
Peel Adhesion to Concrete	ASTM D 903	31.3 lbs./in.
Lap Peel Adhesion	ASTM D 1876	8.7 lbs./in.
Low Temperature Flexibility	ASTM D 1970 180° Bend Over 1" Mandrel at -20°F (-29°C)	No effect
Puncture Resistance (minimum)	ASTM E 154	220 lbs.
Resistance to Hydrostatic head (minimum)	ASTM D 5385	231 ft.
Exposure to Soil Fungi	GSA-PBS 07115 (16 weeks)	No effect
Resistance to Permeance by Methane Gas	ASTM D 1434 Tested Using 99.99% Purity	$3.48 \times 10^{-7} \text{ ft}^3/(\text{ft}^2 \cdot \text{hr} \cdot \text{psi})$
Resistance to Radioactive Radon Gas	Radon Reduction Technology Laboratory % Reduction in Radon Gas Diffusion	97.10%
Water Absorption (maximum)	ASTM D 570	0.1%

Companion Products



**606
Tape**



**Underseal®
Fabric Tape**



**650 LT
Liquid Adhesive**



**California
Sealant**



**Detail
Sealant PW™**



LM-85 SSL



LM-95



**Polyflow®
15/15P**



**Polyflow®
18**



Totalflow™



**Totalflow™
End Outlet**

**Totalflow™
Tee Outlet**



**Underseal®
Inside
Corner Boot**



**Underseal®
Outside
Corner Boot**



**Underseal®
Pit Top
Corner Boot**

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