



AtmoSeal VP

Product Description

Basic Use: AtmoSeal VP is a single-component, vapor-permeable, silyl-terminated polyether (STPE), fluid-applied air barrier membrane. Spray or roller-applied, AtmoSeal VP prevents penetration of unwanted water and air through the building envelope while permitting outward drying of the wall assembly.

AtmoSeal VP bonds to most common building materials without priming, including damp substrates to form a seamless, flexible membrane. Environmentally adaptable, AtmoSeal VP can be applied in wet weather and be left exposed to UV up to 12 months.

Composition: AtmoSeal VP is a single-component, silyl-terminated polyether (STPE) based fluid-applied membrane. It is solvent free and isocyanate free. The formulation cures via moisture-activated condensation of silyl end groups, cross-linking to form a flexible elastomeric matrix. Contains less than 21g/L VOC.

Benefits

- Exceeds 20 perms at 20 mil thickness allows the wall assembly to breathe, limiting the potential for trapped moisture.
- Adheres to and cures on damp substrates and can be applied in wet weather, reducing construction delays.
- Meets the most demanding commercial code requirements. ASTM E84 Class A, AAMA 714-19, and compatible with NFPA 285 wall assemblies by engineering evaluation.
- Wet mil thickness is dry mil thickness, no loss of material during cure.
- Compatible with all EPRO below-grade waterproofing systems for complete warrantable building envelope protection from the ground up.
- Easily conforms to irregular substrates and penetrations to form a seamless, elastomeric air barrier membrane.
- Solvent and isocyanate free.
- Single component, spray or roller applied - no mixing multiple components.
- UV exposure limit of up to 12 months in any climate.

Limitations

- Not for use below-grade or in locations that may be continuously immersed in water.
- Not recommended for application to insulated concrete forms (ICF).
- Adhesion testing recommended for application with asphaltic and butyl sealants and adhesives.

Technical Data

Properties: See Typical Physical Properties table.

Storage and Handling: Store in a cool, dry place with containers

tightly sealed when not in use. Keep away from open flames and sources of ignition. Do not freeze. Do not alter or mix with other materials.

Shelf Life: AtmoSeal VP may be stored for 18 months in a closed, unopened container at temperatures between 41–86°F (5–30°C).
Packaging: 5-gallon pails and 55-gallon drums.

Specification Writer: Contact EPRO before writing specifications for this product. System selection should be reviewed in order to meet project-specific site conditions.

Installation

Preparation: Review all substrate conditions and manufacturer specifications before beginning work. Address any deficiencies prior to application.

Substrate Preparation: All surfaces must be structurally sound, clean, and free of contaminants that may inhibit adhesion, including dust, debris, oils, waxes, form release agents, and surface coatings. When adhesion to asphaltic or butyl-based materials is required, compatibility testing is recommended prior to application.

Exterior Sheathing (Gypsum, OSB, Plywood): Inspect and replace any damaged or improperly fastened sheathing before proceeding. All joints, seams, and fastener heads must be treated with AtmoFlash VP prior to field application of AtmoSeal VP.

Concrete: Allow a minimum 7 day cure before application. Surfaces must be free of curing compounds and form release agents. Fill bug holes, honeycombing, and surface voids with appropriate cementitious filler and allow to cure fully before proceeding.

CMU: Allow mortar joints a minimum 3-day cure before application.

Wood: Where wood framing is exposed at sheathing interfaces, surface residues from chemical treatment in pressure-treated and fire-retardant lumber can interfere with adhesion. Wipe affected surfaces with isopropyl alcohol and allow to fully evaporate before application.

Coverage: Yield will vary with substrate porosity, surface condition, and application method. At the recommended thickness of 20–25 wet mils, estimated coverage is 64–80 ft² per gallon with no waste allowance. Highly porous substrates will reduce yield. Establish actual coverage rates through project mock-up prior to full application.

Air Temperature: Optimal application range is 40°F (4.4°C) and rising to 95°F (35°C). Application is possible from 20°F (–7°C) to 110°F (43°C) with appropriate precautions. Contact EPRO for project-specific guidance below 20°F (–7°C). Refer to the AtmoSeal VP Application Guidelines for cold and hot weather procedures.

Substrate Temperature: Optimal substrate temperature is



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40°F (4.4°C) and rising. Application is possible at substrate temperatures below 40°F (4.4°C) and up to 110°F (43°C) with appropriate precautions. Never apply to frozen or frost-covered substrates. Substrates exceeding 95°F (35°C) may be cooled with a light mist of clean water immediately before application. Refer to AtmoSeal VP Application Guidelines for detailed temperature recommendations.

Application: AtmoSeal VP may be spray applied using a commercial direct immersion airless sprayer capable of maintaining a minimum of 3,500 psi at the tip, or roller applied using a standard 3/4-inch nap roller. Contact EPRO for spray equipment recommendations. For hose runs exceeding 200 ft, use a minimum 1/2" ID hose rated at 4,000 psi or greater.

Complete all AtmoFlash VP detailing at joints, seams, fastener heads, rough openings, penetrations, and transitions before beginning field application. Allow AtmoFlash VP to skin over before applying AtmoSeal VP. Maintain a minimum 2-inch overlap of AtmoSeal VP onto all AtmoFlash VP-treated areas.

Apply at 20–25 wet mils using consistent, overlapping passes to achieve a uniform, continuous film. Following application, examine the membrane carefully for pinholes, voids, or discontinuities and address immediately. Highly porous substrates may require additional passes to achieve a continuous, uniform film. Inspect the completed membrane for full coverage and film continuity before covering with cladding or other wall assembly components. Repair deficiencies with AtmoFlash VP or AtmoSeal VP in accordance with the Application Guidelines.

Curing: Cure rate is dependent on ambient temperature and relative humidity. Warmer, more humid conditions accelerate cure while cold or dry conditions extend it. Skin time is 40–50 minutes at 70°F (21°C) and 50% relative humidity. If faster cure is needed, lightly mist the applied surface with clean water to activate additional moisture cure. Full cure is 12–24 hours.

Availability and Packaging

Contact EPRO sales representative for local distributors or

Typical Physical Properties

Physical Property	Test Method	Value
Film Color.....		Dark Gray
Solids Content.....		99%
Temperature Resistance		248 F (120 C)
Sag up to 60 mils WFT.....		Negligible
UV and Weather Resistance		Excellent
Skin Time		40–50 minutes ¹
Water Vapor Transmission (Wet Cup).....	ASTM E 96	20.5 perms ²
Hardness, Shore A	ASTM C 661	21
Tensile Strength	ASTM D 412	180 psi (1.24 MPa)
Elongation at Break	ASTM D 412	230%

¹at 70°F (21°C) and 50% RH

²Water vapor transmission tested at 20 mil DFT film thickness.

authorized applicators (www.eproinc.com).

Container Size: Pail 5 gallons (50 lbs), Drum 55 gallons (575 lbs)

Warranty

Limited Warranty: EPRO Services, Inc. believes to the best of its knowledge that performance tables are accurate and reliable. EPRO warrants this product to be free from defects. EPRO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE. EPRO's liability shall be limited in all events to supplying sufficient product to retreat the specific areas to which defective product has been applied. EPRO shall have no other liability, including liability for incidental or resultant damages, whether due to breach of warranty or negligence. This warranty may not be modified or extended by representatives of EPRO or its distributors.

Equipment

Spray Application: AtmoSeal VP requires a commercial direct immersion airless sprayer capable of maintaining a minimum of 3,500 psi at the spray tip. For hose lengths longer than 200 ft, a minimum 1/2" ID hose rated at 4,000 psi or greater is required. Contact EPRO for specific spray equipment recommendations.

Roller Application: Recommended standard 3/4-inch nap roller with phenolic core and 1 to 1-1/4 in. nap for CMU/split-face.

Cleanup: Flush all spray equipment, hoses, and tips thoroughly with mineral spirits or equivalent solvent immediately following each use. Never leave AtmoSeal VP standing idle in spray equipment — material left for more than 15 minutes may begin to cure in the pump and lines. Never flush equipment with water as contact with moisture will initiate cure.

Technical Services and Information

Complete technical services and information are available by contacting EPRO at 800.882.1896 or www.eproinc.com.



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ABAA S0008-2021: Standard for Air and Water Resistive Barriers – Fluid Applied Membrane – Material Specification

Physical Property	Test Method	Criteria	Results
Water Vapor Transmission	ASTM E 96 (Wet Cup).....		20.5 perms
Water Vapor Transmission	ASTM E 96 (Dry Cup).....		13.6 perms
Air Permeance	ASTM E 2178	≤0.004 cfm/ft ² at 1.57 psf.....	0.001 cfm/ft ²
Alkali Resistance	ASTM D 543.....	No deleterious effects	Pass
Elongation at Break	ASTM D 412.....	≥200%	Pass
Tensile Strength	ASTM D 412.....		180 psi
Freeze Thaw Resistance	ASTM E 2485	No surface changes	Pass
Fungi Resistance.....	ASTM C 1338.....	No growth	Pass
Gap Bridging	ABAA T0004.....	No surface changes	Pass
Low Temperature Flexibility.....	ASTM D 522.....	No surface changes	Pass
Peel Adhesion to Concrete	ASTM C 794.....	≥5 pli	Pass
Pull Adhesion	ABAA T0002.....	≥16 psi.....	Pass
Water Absorption by Diffusion.....	ASTM C1498.....		1.2%
Water Resistance.....	ASTM D2247	No surface changes	Pass

AAMA 714-19: Voluntary Specification for Liquid-Applied Flashing used to Create a Water-Resistive Seal around Exterior Wall Openings in Buildings

Physical Property	Test Method	Criteria	Results
Adhesive Strength to Substrates.....	ASTM C 794.....	≥5 pli	Pass
Water Penetration Around Nails.....	ASTM D1970.....	1.2 in (31 mm) of water.....	Pass
Water Vapor Permeability.....	ASTM E 96.....	≥10 perms at application thk	Pass
Elevated Temperature.....	AAMA 711, ASTM C794.....	≥5 pli	Pass
Thermal Cycling.....	AAMA 711, ASTM C794.....	≥5 pli	Pass
Water Immersion	AAMA 711, ASTM C794.....	≥5 pli	Pass
Accelerated UV Aging	ASTM G154, ASTM C794.....	≥5 pli	Pass
Crack Bridging.....	ASTM C1305.....	550mm 24hr with 1/16" crack	Pass

ASTM E2357: Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

Physical Property	Test Method	Criteria	Results
System Air Leakage	ASTM E 2357	≤ 0.2 L/s.m ² at 75 Pa	Pass
System Air Leakage	ASTM E 2357	≤ 0.04 cfm/ft ² at 1.57 psf.....	Pass



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ASTM E84: Surface Burning Characteristics (Class A)

Physical Property	Test Method	Criteria	Results
Flame Spread	ASTM E 84.....	≤25	Pass
Smoke Developed	ASTM E 84.....	≤450	Pass

NFPA 285 Compliance

The AtmoSeal VP system is compliant with multiple wall assemblies. Consult the AtmoSeal VP NFPA Reference Sheet for additional information.