



AtmoFlash VP

Product Description

Basic Use: AtmoFlash VP is a single-component, vapor-permeable, silyl-terminated polyether (STPE) sealant intended for use as a gunnable flashing and detailing compound for air barrier applications. A component to the AtmoSeal VP permeable air barrier system, AtmoFlash VP prevents penetration of unwanted water and air at rough openings, joints, seams, fastener heads, penetrations, and transitions while permitting outward drying of the wall assembly.

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

Composition: AtmoFlash VP is a single-component, silyl-terminated polyether (STPE) based sealant. 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

- Vapor permeable — allows outward drying of the wall assembly.
- Productive, single-component gunnable application eliminates the need for adhesive flashing and joint reinforcement tapes.
- Adheres to and cures on damp substrates and can be applied in wet weather, reducing construction delays.
- Easily conforms to complex geometries, irregular substrates, and penetrations to form a seamless, elastomeric flashing air barrier membrane.
- Bridges cracks and fills gaps up to 1/2 inch to maintain continuity of the air and water barrier.
- Compatible with AtmoSeal VP and EPRO below-grade waterproofing systems for complete warrantable building envelope protection from the ground up.
- Solvent free and isocyanate free.
- UV exposure limit of up to 12 months in any climate.

Limitations

- Not for use as a primary air barrier field membrane. Use AtmoSeal VP for field application.
- Not for use in locations designed to be continuously immersed in water.
- Not recommended for application to insulated concrete forms (ICF).
- Not for use as a structural sealant.
- Adhesion testing is recommended prior to application over 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: AtmoFlash VP may be stored for 18 months in a closed, unopened container at temperatures between 41–86°F (5–30°C).

Packaging: 20 oz sausages (2.1 lbs./unit).

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. AtmoFlash VP detailing must be completed before field application of AtmoSeal VP.

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. Gaps, voids, and openings greater than 1 inch must be structurally repaired before application. When adhesion to asphaltic or butyl-based materials is required, compatibility testing is recommended prior to full application.

Exterior Sheathing (Gypsum, OSB, Plywood): Inspect and replace any damaged or improperly fastened sheathing before proceeding. Sheathing surfaces must be free of contaminants.

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: Per unit yield will vary with substrate porosity, surface condition, and application thickness. The following estimates are based on application at the recommended thickness of 12–15 mils with no waste allowance. Establish actual coverage rates through project mock-up prior to application.

- Sheathing joints, 1" extension each side: 100–125 lf
- Fastener heads (2-3/8" dia. spot): 450–500
- Transitions/corners, 4" band: 50–63 lf
- Detail surface: 17–21 ft²
- 1/2" × 1/2" deep gap fill bead: 12 lf



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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 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: Gun AtmoFlash VP using a heavy-duty sausage-style caulking gun (18:1 thrust ratio minimum). The recommended application thickness is 12–15 mils. AtmoFlash VP is a detailing product; use AtmoSeal VP for all primary field air barrier application.

Tooling and Verification: Tool AtmoFlash VP immediately after application using a clean, dry joint knife, trowel, or spatula. Keep all tools dry, solvent or water contamination can inhibit cure and compromise adhesion. Work the material to a uniform 12–15 mil film across the full treated area, adjusting nozzle opening and pattern spacing as necessary to achieve the specified thickness. Verify thickness with a wet film gauge during mock-up and at intervals during production. Completed surfaces must be continuous and free of pinholes, voids, and starved edges.

Gap and Void Treatment: Fill gaps in a separate pass before the AtmoFlash VP surface application. Treat gaps according to width, measured at the widest point. Gaps up to 1/2 inch wide may be filled directly with AtmoFlash VP without non-gassing backer rod. For gaps over 1/2 inch and up to 1 inch, install closed-cell polyethylene non-gassing backer rod before application, sized approximately 25 percent larger than the gap width and set to a uniform depth so the AtmoFlash VP film above the rod is continuous and fully supported. Gaps exceeding 1 inch require structural repair before proceeding. This applies to all conditions described below.

Sequencing with AtmoSeal VP: Allow AtmoFlash VP to skin over before applying AtmoSeal VP — approximately 40–50 minutes at 70°F (21°C) and 50% relative humidity, longer in cold or dry conditions. Maintain a minimum 2-inch overlap of AtmoSeal VP onto all AtmoFlash VP-treated areas, measured from the outer edge of the treated area.

Joints, Seams, and Fastener Heads: Gun AtmoFlash VP in a continuous zigzag pattern along the joint. Tool immediately, spreading outward to a uniform 12–15 mil film extending a minimum of 1 inch beyond the sheathing board edge on each side. Treat fastener heads with a short zigzag or spiral pass, spread to a continuous, pinhole-free spot approximately 2-3/8 inches in diameter.

Rough Openings: Gun AtmoFlash VP into each corner of the

rough opening and along the sheathing-to-framing interface, then apply in a zigzag pattern along the interior faces of the opening and onto the exterior wall surface. Extend the material a minimum of 2 inches onto the exterior face on all sides. Work the material fully into inside corners and at the sheathing-to-framing interface. Allow to skin over before installing windows, doors, or other wall assembly components.

Penetrations: At all pipe, conduit, and mechanical penetrations, gun AtmoFlash VP to create a 1-inch cant at the junction of the penetrating element and the sheathing. Tool the cant to a continuous, uniform fillet with no voids at either interface.

Transitions: At all transitions between dissimilar materials and air barrier system components — including sheathing-to-concrete, sheathing-to-CMU, and below-grade waterproofing-to-above-grade air barrier interfaces — gun AtmoFlash VP in a zigzag pattern along the transition and spread to extend a minimum of 2 inches onto each substrate. Where the two substrates are not flush, work the material fully into the change in plane; do not bridge across an unsupported void. Greater extensions may be required depending on project conditions; consult EPRO details and 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.

Cleanup: Clean all tools and equipment with mineral spirits or equivalent solvent immediately after use. Cured AtmoFlash VP must be removed mechanically using a sharp-edged tool.

Availability and Packaging

Contact EPRO sales representative for local distributors or authorized applicators (www.eproinc.com).

Unit Size: 20 oz sausages (2.1 lbs./unit)

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

Gun Application: Apply AtmoFlash VP using a heavy-duty



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sausage-style caulking gun (18:1 thrust ratio minimum). Tool and spread with a dry joint knife, trowel, or spatula. Do not use soapy water or solvent to assist with tooling or to slick the surface profile.

Cleanup and Maintenance: Clean tools and equipment with mineral spirits or solvent immediately after use. Remove cured AtmoFlash VP mechanically using a sharp-edged tool.

Technical Services and Information

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

Typical Physical Properties

Physical Property	Test Method	Value
Film Color		Blue
UV and Weather Resistance		Excellent
Skin Time		40–50 minutes ¹
Water Vapor Transmission (Wet Cup).....	ASTM E 96	13.6 perms ²
Hardness, Shore A	ASTM C 661	25-35
Tensile Strength	ASTM D 412	>120 psi (0.83 MPa)
Elongation at Break	ASTM D 412	>300%

¹at 70°F (21°C) and 50% RH

²Water vapor transmission tested at 15 mil dry film thickness.

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 D 1970.....	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 C 794	≥5 pli	Pass
Thermal Cycling.....	AAMA 711, ASTM C 794	≥5 pli	Pass
Water Immersion.....	AAMA 711, ASTM C 794	≥5 pli	Pass
Accelerated UV Aging	ASTM G 154, ASTM C 794	≥5 pli	Pass
Crack Bridging.....	ASTM C 1305.....	550mm 24hr with 1/16" crack	Pass

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