



Air-Bloc® All Weather STPE

UV Resistant, Vapor Permeable Air Barrier

Physical property	Typical value	Test method
Color	Black	-
Specified Film Thickness	20 mils (0.5 mm) wet/dry	Wet: comb gauge/ Dry: solids calculation
Solids Content (volume)	>98%	
Application Temperature	10 °F to 122 °F (-12 °C to +50 °C)	-
Service Temperature*	-40 °F to 300 °F (-40 °C to +149 °C)	-
Rain Ready Time	within 30 minutes	-
Drying Time - Skin Formation	1-2 hours	-
Drying Time - Set Through	24 hours	-
Water Vapor Permeance at 20 mils (0.5 mm)	16 perms (915 ng/[Pa*m ² *s]) 11 perms (629 ng/[Pa*m ² *s])	ASTM E96, water method (B) ASTM E96, desiccant method (A)
Air Permeance - Material	0.001 cfm/ft ² @ 1.57 PSF (0.005 L/[s*m ²] @ 75 Pa)	ASTM E2178
Air Leakage – Assembly; Max. infiltration/exfiltration after cycling	<0.04 CFM/ft ² @1.57 PSF (<0.2 L/[s*m ²] @ 75 Pa)	ASTM E2357
Elongation	350%	ASTM D412
Tensile Strength	100 psi (689 kPa)	ASTM D412
Pull-off Adhesion (typical)	165 psi (1,137 kPa) - concrete ≥16 psi (110 kPa) or facer failure - exterior gypsum sheathing 60 psi (413 kPa) - OSB	ASTM D4541
Nail Sealability	Pass	AAMA 711-07 (ASTM D1970 modified)
Damp Surface Adhesion	Pass	AAMA 714-19 (ASTM C794)
Water Resistance	Pass	AATCC TM127
Flame Spread Index	20, Class A	ASTM E84
Smoke Developed	10, Class A	ASTM E84
Fire Testing	Complies with NFPA 285 in various wall assemblies; 20-mil meets IBC 2021 - 1402.5 exception #2	NFPA 285
Crack Bridging	Pass 10 cycles at -15°F (-26°C)	ASTM C1305
Low Temperature Flexibility	Pass -40°F (-40°C)	ASTM D1970
Freeze-Thaw	Pass - no effect	ASTM D2243
Accelerated Weathering	>5,000 hours	ASTM G154
Resistance to Mold, Mildew & Fungal Growth	Pass	ASTM D5590
VOC Content, max	25 g/L	EPA Method 24

*Membrane only; accessories have different service temperatures.

Codes and Approvals

2021 *International Building Code*: Chapter 14, Sec 1402.5 Combustible Water Resistive Barriers NFPA 285 Exception 2:

$HRR_{peak} < 150 \text{ W/m}^2$ THR < 20 MJ/m² EHC < 18 MJ/kg tested horizontally @ Heat Flux 50 kW/m², ASTM E1354

Flame Spread ≤25 smoke ≤450, ASTM E84

Air Barrier Association of America: Evaluated air barrier material and air barrier assembly

USGBC LEED v4: MR Credit Building Product Disclosure & Optimization; Health Product Declaration “HPD”

International Living Future Institute: Declare Label LBC Red List Free

Southern California Air Quality Management District: Rule 1113 Architectural Coatings, Table of Standards 1 VOC Limits, Building Envelope Coating ≤ 50g/L

Description

Henry® Air-Bloc All-Weather STPE is a high-solids, low VOC fluid-applied membrane for use in above-grade walls as an air and water resistive barrier. The product is installed to opaque wall substrates, then covered with a code-approved exterior cladding or thermal barrier. **Henry® Air-Bloc All-Weather STPE** uses Silyl Terminated Polyether (STPE) chemistry which cures with ambient moisture to form a tough, monolithic rubber-like membrane. This UV-resistant, black membrane can endure one year of exposure before cladding installation and can be used behind open-joint rain screen cladding. **Henry® Air-Bloc All-Weather STPE** is an excellent alternative to water-based materials where faster and more robust resistance to rain and tolerance of substrate dampness is required. **Air-Bloc All-Weather STPE** is provided in pails or drums and is applied by roller, brush or spray.

Features and benefits

- Can be left exposed for up to 12 months during construction.
- Allowed under open joint cladding.
- High solids content allows thinner application and higher coverage rate.
- Superior rain wash-off resistance and damp substrate tolerance offers schedule flexibility.
- Will not freeze. Can be shipped and stored in freezing conditions.
- Single component, one coat application; can be spray, roll, or brush applied for fast, easy installation.
- Excellent adhesion to most substrates; can be applied to damp surfaces.
- Same product on open wall can cover corners and rough openings, reducing detail complexity.
- Low temperature application down to 10°F (-12°C)
- NFPA 285 compliance: compliant in various wall assemblies; meets IBC 1403.5 exception#2
- Living Building Challenge Declare Label (Red List Free)

Usage

Air-Bloc All Weather STPE is used in construction of high-performance wall assemblies requiring vapor permeability along with UV, rain wash-off and high temperature resistance. When integrated with **Henry®** accessory products, **Air-Bloc All Weather STPE** forms a complete wall system meeting the highest industry performance standards. Product is suitable for use on a variety of wall substrates in situations where year-long outdoor exposure prior to cladding installation is anticipated and/or the product will be visible through open-joint cladding.

Application

Surface Prep: All surfaces must be sound, clean and free of frost, oil, grease, dirt, excess mortar or other contaminants. Acceptable substrates include exterior-grade gypsum sheathing, plywood, OSB, wood, precast or cast-in-place concrete, primed steel, aluminum mill finish, anodized aluminum, and galvanized metal. Concrete shall be cured 3 days minimum, and surfaces shall be free of large voids and spalled areas. Masonry mortar joints shall be struck flush or tooled and free of voids. Masonry shall have mortar droppings removed from ties and surfaces.

Apply: **Air-Bloc All Weather STPE** may be applied by brush, roller, or approved spray technique in a single coat application. Apply in a continuous, monolithic application without sags, runs or voids, transitioning onto flashing details to create a uniform drainage plane and air barrier. Regularly monitor wet mil thickness during application to assure adequate coverage.

Air-Bloc® All Weather STPE

Coverage Rates:

Typical* Application Rates on Wall Substrates, 20 mils (0.5mm) Thickness

Substrate	Per Unit of Volume ft ² /GAL (m ² /L)	Per Pail ft ² (m ²)	Per Drum ft ² (m ²)
Smooth: Exterior gypsum sheathing, OSB	60-75 (1.47 – 1.84)	300-375 (27.8 – 34.8)	3,300 – 4,125 (306 – 383)
Rough: CMU, Concrete	40-60 (0.98 -1.47)	200-300 (18.6 – 27.8)	2,200 – 3,300 (204 – 306)

*Application rates can vary significantly based on texture and porosity of substrate.

Spray Recommendations: Air-Bloc All Weather STPE can be installed using approved equipment and technique. Spray equipment must be properly specified, operated, and maintained to deliver consistent output and quality. Product and equipment must be kept free of moisture before and during operation. For more information, refer to Henry® Air-Bloc All Weather STPE Installation Manual.

Installation: Joints, transitions, openings, penetrations, terminations, and irregularities must be detailed with Henry® accessory products. Henry® accessory products include Air-Bloc LF liquid flashing, 925 BES sealant, Blueskin® self-adhered flashings and Henry® adhesive/primers. Air-Bloc All Weather STPE is applied at minimum 1" (2.5 cm) lap onto details while covering the wall substrates using roller, brush or spray technique. Finished membrane shall be at least 20 mils (0.5 mm) thick and be free of holes or voids. Refer to Air-Bloc All Weather STPE Installation Manual and Architectural Details for complete application information.

Limitations: Avoid installing asphaltic self-adhered flashings and membranes over Air-Bloc All Weather STPE. Allow longer cure time for Air-Bloc All Weather STPE installed at sub-freezing temperatures. Do not apply product during rain or on wet surfaces; damp surfaces are acceptable. Air-Bloc All Weather STPE is not designed or intended for exposure to negative side bulk water.

Clean Up: Uncured material may be cleaned from tools, hands and surfaces using solvent or other cleaners for oil-based materials. Cured product must be removed mechanically. For flush and clean-out of spray equipment, consult the Air-Bloc All Weather STPE Installation Guideline.

Product size/packaging

5-gallon (18.9 L) pails
55-gallon (208 L) drums

Storage

Store in a cool, dry location protected from direct sunlight and precipitation. Shelf life in original unopened packaging stored at or below 80°F (26.7°C) is 12 months from date of manufacture.

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