



TECHNICAL DATA SHEET
Air-Bloc® 31MR
 Fluid Applied, Vapor Permeable
 Air & Water Barrier Membrane

Typical Physical Properties

-Color	Gray	-Watertightness	Pass
-Solids by Weight	60%	CAN/CGSB-37.58-M86	
-Weight	10.8 lbs/gal (1.3 kg/l)	-Water Vapor Permeance	21 perms
-Drying Time @50% R.H., +68°F (+20°C), Dry Substrate	2 Hours to touch dry 24 Hours to firm dry	ASTM E-96, proc. B @ 3mm (1/8") wet film	(1,201 ng/Pa.m ² .s)
-Service Temperature	-40°F to +158°F (-40°C to +70°C)	-Air Permeability Testing	
-Application Temperature	+40°F to +122°F (+4°C to +50°C)	ASTM E283, applied at 2.2 l/m ² to CMU wall	
-Tensile Strength	137psi (950 kPa)	75Pa @ 70°F	0.00010 cfm/ft ²
-Elongation, %	1000%	250Pa @ 70°F	0.00014 cfm/ft ²
-Peel Strength, to Dry	1327 lbf/ft (1.8 kN/m)	300Pa @ 70°F	0.00015 cfm/ft ²
-Low Temperature Flexibility and Crack Bridging @ -20°C	Pass	ASTM E2357, Assembly Air Leakage Testing	Pass
-Aging-Long Term Flexibility	No fracturing	ASTM E2178, @ 75Pa	0.0002 cfm/ft ² (0.001 L/s.m ²)
-Nail Sealability	Pass	-Resistance to Gust Wind Load	Meets Mass/Canadian code requirements for air leakage @ 3000Pa gust load suction pressure
-Resistance to Mold, Mildew & Fungal growth	-0- No Growth	-Chemical Resistance	Resists salt solutions, mild acids and alkalis. Non- resistant to oils, grease or solvents
-VOC Content	15 grams/liter, max	-Fire Testing	Complies with NFPA 285 in various wall assemblies
		-Flame Spread	15
		-Smoke Developed	60
		ASTM E84	
		ASTM E84	

Reference Tests & Standards

ASTM E2357 Air Barrier Assembly Test	ASTM D5590 Mold/Mildew/Fungus Resistant	ABAA Accreditation	Massachusetts Commercial Energy Code (780 CMR, Chapter 13)
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Description

Air-Bloc® 31MR is a liquid applied, elastomeric membrane designed to provide a permeable air & water barrier when applied to above-grade wall assemblies. It is single-component, water-based and cures to a tough monolithic rubber-like membrane, which resists air leakage and water penetration. **Air-Bloc® 31MR** combines the proven performance of **Air-Bloc® 31MR** with the addition of Henry antimicrobial technology to create an integral mold resistant membrane.

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Features

- Seamless, vapor permeable elastomeric membrane for above grade walls
- Easy, low cost spray application using simple equipment
- Integral mold resistant formulation
- High water vapor permeance provides “breather” characteristics
- Excellent adhesion to most construction surfaces such as exterior gypsum boards, CMU, concrete, stone, wood and metal
- Excellent adhesion to most wall construction surfaces -can be applied to damp concrete
- Meets highest industry performance standards

Product Sizes

5 gal pails, 55 gal drums

Uses

Air-Bloc® 31MR is used in construction of high performance wall assemblies requiring vapor permeability in an air & water barrier membrane. Integrated with **Blueskin®** flashing and accessories to form a complete wall system meeting highest industry performance standards. Commonly used on variety of wall substrates and sheathing prior to installation of exterior cladding.

Limitations

Must be protected from damage during construction. KEEP FROM FREEZING. Do not apply to wet surfaces. Not designed for permanent exposure to weather - protect as soon as possible, however can be exposed up to 3 months if necessary to accommodate construction scheduling.

Air-Bloc® 31MR shall not be applied when ambient (air) and substrate temperatures are below 40°F (5°C). The product should not be applied if it is raining, or if the possibility of rain is likely within 16 hours. The product should not be applied if it is expected that the ambient temperature will fall below 32°F within 48 hours. Following installation of **Air-Bloc® 31MR** in new building construction, CMU walls where product has been applied must be protected at the roof line to prevent water infiltration into the wall cavity.

In hot weather or direct-sun applications over porous substrates, such as concrete, rapid surface drying can form blisters. A thin ‘prime coat’ application to substrate, which is allowed to dry, often prevents blister formation in subsequent application. Alternatively a two coat application vs. single heavy coat – with back rolling of base coat – also aids in prevention of blistering in hot weather.

Surface Preparation

All surfaces must be sound, dry, clean and free of frost, oil, grease, dirt, excess mortar or other contaminants. New concrete should be cured for a minimum of 16 hours before **Air-Bloc® 31MR** is applied. Concrete surfaces should be free of large voids and spalled areas. Joints between panels of exterior grade gypsum, plywood and rigid insulation up to ¼” wide shall be filled with a trowel application of **Air-Bloc® 31MR** and reinforced with a strip of 2” wide glass fiber tape such as **Henry #183 Yellow Glass Fabric** prior to application of liquid membrane. Joints between panels of exterior grade gypsum or plywood wider than ¼” should be sealed with **Blueskin®** membrane adhered to the primed substrate (use **Blueskin® Primer** or **Henry #545 Aquatac™**) and lapped a minimum of 3” on both sides of the crack. Joints wider than ¼” between panels of rigid insulation are not permitted. Mortar joints on CMU walls should be struck flush with block surface. Cracks in masonry and concrete up to ¼” wide shall be filled with a trowel application of **Air-Bloc® 31MR** and allowed to cure overnight prior to application of the liquid membrane to the surface, or alternatively, the cracks may be sealed with a strip of **Blueskin®** membrane applied to the primed substrate (use **Blueskin® Primer** or **Henry #545 Aquatac™**). Cracks wider than ¼” should be sealed with **Blueskin®** membrane adhered to the primed substrate and lapped a minimum of 3” on both sides of the crack. Transition joints between two dissimilar materials at beams, columns, window and door frames, etc., should be sealed with strips of **Blueskin®** membrane, lapped a minimum of 3” on both substrates. Mechanical attachment should be made to all window and door frames, or a properly designed sealant joint should be provided.

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Joint & Crack Treatment

Dynamic or expansion joint treatment must be in compliance with projects' architectural details and specifications.

Sheathing or Substrate Non-Moving Joint Treatment Options:

Note: apply per products' published Technical Data Sheets

<i>Non-Moving Joint Width</i>	Method #1 Sealant Method	Method #2 Fluid-Ap Method	Method #3 Self-adhered Sheet Method
Less than 6mm (1/4")	<ol style="list-style-type: none">HE 925 BES SealantFill and strike smoothAllow to dry	<ol style="list-style-type: none">Fill with Air-Bloc® 31MR by trowel, extending beyond joint line a minimum 75mm (3") onto face of substrateFully embed 50mm (2") minimum Yellow Jacket glass fiber reinforcing tape into wet Air-Bloc® 31MR – centered over joint.	<ol style="list-style-type: none">Apply Blueskin Adhesive, Blueskin LVC Adhesive or AquatacAllow to dryApply self-adhered membrane and roll in place. <p>Select One:</p> <p>Permeable option:</p> <ul style="list-style-type: none">BlueskinVP 160 <p>Non-permeable option:</p> <ul style="list-style-type: none">Blueskin SABlueskin SA LTBlueskin SA HTFoilskin
6mm (1/4") to 12mm (1/2")	Same As Above	Do Not Use	Same As Above

Application

Air-Bloc® 31MR may be applied by brush or roller, however application by conventional air assisted spray equipment in a single or dual-coat application is the preferred method. Apply in continuous, monolithic application without sags, runs or voids, transitioning onto flashing membrane to create a uniform drainage plane and air-barrier. Regularly monitor wet mil thickness during application to assure adequate coverage. The preferred method of application is to mark areas off and ensure that the appropriate volume has been sprayed over this area. During spraying, the material should be applied in horizontal strokes ensuring even application of the product, and then applied in vertical strokes, again ensuring even application. In areas where surface is not uniform, i.e., slightly rough with the presence of small indentations and recesses, an added over-spray should be performed. This over-spray should be sufficient to fill the voids, without excessive material application such that slumping or running of the material occurs.

Coverage Rates: Apply per published architectural specifications. Typical application rates include:

- Smooth Surfaces** such as exterior gypsum sheathing or formed concrete: 4.25 gal US/ 100 ft² (1.7 l/m²) to give a wet film thickness of approximately 70 mils (1.75mm), and a cured dry film thickness of 35 mils, depending on texture and porosity of surface
- Rough Surfaces** such as CMU: 5.4 gal US / 100ft² (2.2 l/m²) to give a wet film thickness of approximately 90 mils depending on texture and porosity of surface

Application Equipment: Suggested Spray Equipment: Graco President 10:1 pump, Graco Mastic Gun 204-000 with 1/4" round tip or similar equipment.

Protection of Finished Work: **Air-Bloc® 31MR** and **Blueskin®** are not designed for permanent exposure. Product is designed to withstand job site exposure for up to 3 months, however, good construction practice calls for covering as soon as possible. Wherever possible, begin covering membrane on south exposures, followed by remainder of surface. In cases where extended exposure periods are expected, use UV resistant **Henry Air-Bloc® 33MR** as an alternate.

Precautions

When transporting this product, be sure the container is secured and the lid is tight. Do not allow container to tumble as this may loosen the lid and allow leakage to occur. Avoid freezing during storage, application and before material has cured.

Clean Up

Spray equipment can be flushed out with water. Use mineral spirits to remove dried films.

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Caution

DO NOT TAKE INTERNALLY! Close container after each use. Avoid breathing of vapors as it may cause respiratory tract irritation. Use protective measures to avoid contact with eyes and skin. If swallowed, **CALL PHYSICIAN IMMEDIATELY!** In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. In case of accidental injection by power spray equipment, **GET MEDICAL ATTENTION!** Dispose of container and unused contents in accordance with Local, State and Federal regulations. Do not heat container or store at temperatures greater than 120°F. **KEEP OUT OF REACH OF CHILDREN. FOR EXTERIOR USE ONLY. KEEP FROM FREEZING.**

WARNING: This product contains detectable amounts of chemicals known to the State of California to cause cancer, or birth defects or other reproductive harm.

Employers should obtain a copy of the **Material Safety Data Sheet (MSDS)** from your supplier or directly from Henry at the toll free number or website below.

Limited Warranty

We, the manufacturer, warrant only that this product is free of defects, since many factors which affect the results obtained from this product – such as weather, workmanship, equipment utilized and prior condition of the substrate – are all beyond our control. We will replace at no charge any product proved to be defective within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided. **DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY: THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES EXPRESS OR IMPLIED INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FOR A PARTICULAR PURPOSE. MANUFACTURER SHALL HAVE NO LIABILITY OF ANY KIND BEYOND PRODUCT REPLACEMENT, INCLUDING FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES RESULTING FROM ANY DEFECTS OR ANY DELAYS CAUSED BY REPLACEMENT OR OTHERWISE. THIS LIMITED WARRANTY PROVIDES THE PURCHASER'S EXCLUSIVE REMEDY FOR ANY DEFECT IN THE PRODUCT.**

Contact Warranty Department at warranty@henry.com or location shown below for product or systems warranty information.

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