

# TECHNICAL DATA SHEET Air-Bloc® 16MR

Air and Vapor Barrier

Physical Property	Typical Value	Test Method	
Color	Gray	-	
Recommended Film Thickness	60 mils (1.5 mm) wet 36 mils (0.91 mm) dry		
Solids Content	By Weight: 69% By Volume: 60%		
Weight	11.1 lbs/gal (1.3 kg/L)	-	
Minimum Application Temperature (See Limitations)	+20°F (-6°C)		
Service Temperature	-40°F to +180°F (-40°C to +82°C)		
Drying Time – Skin Formation	4-6 hours at 20°F (-6°C)	-	
Drying Time – Set Through	24-48 hours at 20°F (-6°C)	-	
Water Vapor Permeance	0.03 Perms	ASTM E96, Method A	
Air Permeance - Material @ 75Pa	0.0013 L/[sec-m <sup>2</sup> ] - Pass	ASTM E2178	
Air Leakage - Assembly	Pass	ASTM E2357	
Elongation	270%	ASTM D412	
Tensile Strength	100 psi (689 kPa)	ASTM D412	
Pull-off Adhesion	>20psi – Exterior gypsum sheathing >20psi – Masonry substrates	ASTM D4541	
Flame Spread Index	20, Class A	ASTM E84	
Smoke Developed	85, Class A	ASTM E84	
Fire Testing	Complies with NFPA 285 in various wall NFPA 285 assemblies		
Water Absorption	4.6%	ASTM D570	
Freeze-Thaw Resistance	Passes 10 cycles	ASTM D2243	
Low Temperature Flexibility	Pass 1"@-20°F (25 mm@ -29°C)	ASTM D1970	
Crack Bridging	No cracking after 10 cycles @ 15°F (-9°C)	ASTM C1305	
Nail Sealabilty	Pass	AAMA 711-07(ASTM D1970 modified)	
Resistance to Mold, Mildew & Fungal growth	Pass	ASTM D5590	
Chemical Resistance	Resists salt solutions, mild acids, and alkalis.		
VOC Content	≤50 g/L	-	

# Description

Air-Bloc® 16MR is a liquid applied, elastomeric membrane designed to provide a vapor impermeable air and 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® 16MR includes an antimicrobial technology to create an integral mold resistant membrane, and offers a broad application temperature range with a proprietary fire resistance technology to achieve compliance with stringent NFPA 285 requirements.

### **Features**

- Low temperature application 20°F (-6°C) and rising with no additives required
- Proprietary fire resistant technology provides superior fire performance for compliance with NFPA 285
- Seamless, vapor impermeable elastomeric membrane for above grade walls
- Integral mold resistant formulation
- Excellent adhesion to most construction surfaces such as exterior gypsum boards, CMU, concrete, stone, wood and metal
- Meets highest industry performance standards

# Usage

Air-Bloc® 16MR is used in construction of high performance wall assemblies requiring vapor impermeability in an air and water barrier. Air-Bloc® 16MR can be integrated with Henry® flashings and accessories as part of a complete wall system meeting the

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highest industry performance standards. **Air-Bloc® 16MR** is commonly used on variety of wall substrates and sheathing prior to installation of insulation and exterior cladding.

#### **Application**

**Surface Prep**: 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® 16MR** is applied. Concrete surfaces should be free of large voids and spalled areas.

Apply: Air-Bloc® 16MR may be applied by brush, trowel 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: 3.7 gal US / 100 ft² (1.5 L/m²) to give a wet film thickness of approximately 60 mils (1.5 mm), and a nominal cured dry film thickness of 36 mils (0.91 mm), depending on texture and porosity of surface
- Rough Surfaces such as CMU: 5.4 gal US / 100 ft<sup>2</sup> (2.2 L/m<sup>2</sup>) to give a wet film thickness of approximately 90 mils (2.3 mm), and a nominal cured dry film thickness of 54 mils (1.4 mm), depending on texture and porosity of surface

# **Application Equipment:**

- 5 Gallon Pail: Suggested Spray Equipment: Graco® 7900HD (2.1 GPM and 3300psi) airless sprayer with up to 250' of 3/8" ID hose and a HD Mastic Gun using a .031-.045 XHD tip, or similar equipment
- **55 Gallon Drum:** Suggested Spray Equipment: Graco® 833HD (4.0 GPM and 4000psi) airless sprayer with up to 250' of 3/8" ID hose and a HD Mastic Gun using a .031-.045 XHD tip, or similar equipment

Joint and Crack Treatment: Joints between panels of exterior grade gypsum and plywood should be treated as outlined in the table below. Mortar joints on CMU walls should be struck full and flush with block surface. Cracks in masonry and concrete up to ½" (12 mm) wide shall be filled with a trowel application of 925 BES Sealant or Air-Bloc® LF and allowed to cure overnight prior to application of the liquid-applied air barrier to the surface, or alternatively, the cracks may be sealed with a strip of Blueskin® air barrier. Transition joints between two dissimilar asphalt compatible materials at beams, columns, window and door frames, etc., should be sealed with strips of Blueskin® air barrier, lapped a minimum of 3" (75 mm) on both substrates. Surfaces to receive Blueskin® air barrier must be prepared per the applicable Technical Data Sheet. For non-asphalt compatible materials, contact your Henry® representative for more information. Dynamic or expansion joint treatment must be in compliance with the project's architectural details and specifications.

# **Sheathing or Substrate Non-Moving Joint Treatment Options:**

Note: Apply per products' published Technical Data Sheets

Non-Moving Joints	Method #1 Sealant Method	Method #2 Fluid-Applied Method	Method #3 Self-Adhered Sheet Method
Less than 1/4" (6mm)	1. 925 BES Sealant or Air-Bloc® LF 2. Fill and strike smooth 3. Allow to dry	1. Fill with Air-Bloc® 16MR by trowel or spray, extending beyond joint line a minimum of 3" (75 mm) onto face of substrate 2. Fully embed 2" (50 mm) minimum 183 – Repair Fabric Yellow Fiberglass glass fiber reinforcing tape into wet Air-Bloc® 16 MR – centered over joint	<ol> <li>Apply Blueskin®         Adhesive, Blueskin®         LVC Adhesive or         Aquatac™ Primer</li> <li>Allow to dry</li> <li>Apply self-adhered membrane and roll in place.</li> <li>Select One:         Non-permeable option:         <ul> <li>Blueskin® SA</li> <li>Blueskin® SA LT</li> <li>Metal Clad®</li> </ul> </li> </ol>
1/4" (6mm) to 1/2" (12mm)	Same As Above	Do Not Use	Same as above

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**Limitations: Air-Bloc® 16MR** is designed for exposure of up to 180 days, but is not designed for permanent exposure to ultraviolet light and should be covered as soon as practical after application. Do not expose the backside of the substrate to moisture or rain. Protect exposed back-up walls against wet weather conditions during and after application of membrane, including wall openings and construction activity above completed air barrier installation.

**Air-Bloc® 16MR** should not be applied to wet surfaces or when ambient air and substrate temperatures are below or expected to fall below 20°F (-6°C) within 48 hours. The product should not be applied if it is raining, or if the possibility of rain is likely within 16 hours.

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. **Air-Bloc® 16MR** is non-resistant to oils, grease or solvents.

# **Packaging**

5 gallon (18.82 L) pails 55 gallon (205 L) drums

# **Storage**

Store in a well-ventilated space. Recommended storage temperature from 39°F (4°C) to 104°F (40°C).

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