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(Supersedes September 2017)

# AIR-SHIELD™ LM

## Liquid Membrane Air/Vapor and Liquid Moisture Barrier

### DESCRIPTION

AIR-SHIELD LM is a single-component, liquid-applied, water-based, polymer-modified air/vapor and liquid moisture barrier. AIR-SHIELD LM cures to form a tough, seamless, elastomeric membrane, which exhibits excellent resistance to air and moisture transmission.

### USES

AIR-SHIELD LM has been specifically formulated to act as an air/vapor and liquid moisture barrier within the building envelope. It may be applied to most common surfaces and integrated into various wall systems. AIR-SHIELD LM is suitable for both new construction and restoration. Primary applications include cavity wall and masonry wall construction. AIR-SHIELD LM works equally well as an air and/or vapor barrier on precast concrete, cast-in-place concrete, masonry (concrete block), interior and exterior gypsum board, Styrofoam, primed steel, aluminium mill finish, anodized aluminium, primed galvanized metal, drywall, and plywood.

### FEATURES/BENEFITS

- Low permeability - prevents the transmission of air and inhibits moisture and vapor from passing through porous building materials.
- Highly flexible - bridges cracks, which may form in the substrate.
- User friendly – single-component, water-based technology allows for simple, safe application and easy cleanup.
- Liquid applied - simplifies detailing and assures a monolithic, seamless membrane when applied to a rough or smooth surface.
- Sprayable - with appropriately configured airless spray equipment - low application costs.
- Excellent adhesion - remains firmly bonded to the substrate, even when applied over damp surfaces.
- VOC content is 0.0 g/L. Produces no harmful odors.
- Compatible with other asphalt-based emulsion products.
- May be applied to “green” concrete.
- Self-sealing – Nails and fasteners can be used without compromising performance.

### PACKAGING

5 Gallon (18.93 L) Pails  
55 Gallon (208.20 L) Drums\*\*

\*\*Available upon special order only

### COVERAGE

**Application Rate** 20 - 25 ft.<sup>2</sup>/gal. (0.49 - 0.61 m<sup>2</sup>/L)

**Wet Film Thickness** 60 mil (1.5 mm)

**Cured Film Thickness** 45 mil (1.15 mm)

Coverage dependent on substrate type, weather, and application conditions.

### SHELF LIFE

When stored indoors in original, unopened containers at temperatures between 40° - 90° F (4° - 32° C), optimum performance and best use is obtained within six months of date of manufacture.

### SPECIFICATIONS

- Exceeds Air Barrier Association of America (ABAA) Section 07262 requirements for fluid-applied air barriers.
- Exceeds ABAA maximum air permeance requirements when tested in accordance with ASTM E 2178.
- Exceeds ABAA maximum assembly air leakage requirements when tested in accordance with ASTM E 2357.
- Exceeds the requirements of the Massachusetts Commercial Energy Code for Building Envelope Systems.
- Complies with all current federal, state, and local maximum allowable VOC requirements, including National EPA VOC Emission Standard for Architectural Coatings, CARB, LADCO, OTC Phase I and II, and SCAQMD.

#### Air Leakage

Test Method	ASTM E 2178-01	ASTM E 2357
Pressure	75 Pa (1.57lb/ft <sup>2</sup> )	75 Pa (1.57lb/ft <sup>2</sup> )
ABAA Requirements	0.004 cmf/ ft <sup>2</sup> (0.02L/S/M <sup>2</sup> )	0.004 cmf/ ft <sup>2</sup> (0.02L/S/M <sup>2</sup> )
AIR-SHIELD LM Results	<0.004 cmf/ ft <sup>2</sup> (0.02L/S/M <sup>2</sup> )	<0.04 cmf/ ft <sup>2</sup> (0.02L/S/M <sup>2</sup> )

\*Independent Tests available upon request

### TECHNICAL DATA

<b>% Solids</b>	70
<b>VOC Content</b>	0 g/L
<b>Color</b>	Black
<b>Elongation (ASTM D412)</b>	1500%

CONTINUED ON THE REVERSE SIDE...

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<b>Water Vapor Permeance</b> (ASTM E96, Procedure A)	IBC Class I Vapor Retarder 0.1 Perms
<b>Service Temperature</b>	-20° - 140° F (-29° C - 60° C)
<b>Application Temperature</b>	>30° F (-1° C)
<b>Storage Temperature</b>	40° - 90° F (4° C - 30° C)

## APPLICATION

**Surface Preparation...** All surfaces must be clean (free of all coatings and curing compounds), structurally sound, and relatively smooth. Prepare substrate per manufacturer's instruction prior to application of membrane. All walls to receive AIR-SHIELD LM be capped to prevent moisture infiltration from entering the wall during construction.

**Exterior Sheathing Panels...** Exterior sheathing panels are to be installed and fastened per manufacturer's recommendation. For detailed application information, see INSTALLATION INSTRUCTIONS: JOINT TREATMENT OF EXTERIOR SHEATHING PANELS WHEN USING AIR-SHIELD LM available at [www.wrmeadows.com](http://www.wrmeadows.com). For joint treatment in plywood and OSB sheathing, please see PLYWOOD SHEATHING JOINT DETAIL INSTALLATION GUIDELINES also available at [www.wrmeadows.com](http://www.wrmeadows.com).

**Rough Openings...** Refer to AIR-SHIELD ROUGH OPENINGS INSTALLATION GUIDELINES document available at [www.wrmeadows.com](http://www.wrmeadows.com) for recommendations.

### Concrete Masonry Units

Before applying AIR-SHIELD LM to CMU surfaces, patch all cracks, protrusions, small voids, offsets, details, irregularities, and small deformities with MEADOW-PATCH® 5 or MEADOW-PATCH 20 from W. R. MEADOWS at least two hours before application.

**Application Method ...** AIR-SHIELD LM may be applied by spraying or a 3/4" (19 mm) minimum nap roller. (For recommendations on spray equipment, consult W. R. MEADOWS technical staff.)

Thoroughly, mechanically mix AIR-SHIELD LM prior to application. AIR-SHIELD LM may be sprayed on at a minimum coverage thickness of 60 mils wet (45 mils dry). Spray using a cross-hatch pattern to lay an even coat. Build 60 mils total wet thickness in multiple coats. Apply the next coat after the first coat has dried (approximately one to two hours). Frequently inspect surface area with a wet mil gauge to ensure consistent thickness. Work material well into any fluted rib forming indentations. Porous masonry block

walls may require additional coats to obtain desired thickness. AIR-SHIELD LM may be exposed to open air for 30 – 40 days, depending on specific weather conditions at jobsite.

For roller applications, AIR-SHIELD LM can be applied directly from the container using a 3/4" (19.05 mm) nap roller. Apply in two coats, each 30 mils thick, allowing first coat to reach initial set prior to application of second coat.

**Curing and Drying ...** Allow material to dry at air and surface temperatures of 30° F (-1° C) or higher. Curing times will be affected by relative humidity, temperature, and airflow. The following times are given for average conditions and standard thicknesses. Actual times may differ, depending on specific conditions present on job at time of application. It is recommended that AIR-SHIELD LM be allowed to air dry to a tack-free film before application of specified insulation.  
Tack-free film: 1 hour  
Full cure: 48 hours

**Cleanup ...** Uncured AIR-SHIELD LM cleans up easily while wet with water. Cured material is best removed by xylene (xylo) or by mechanical means.

## PRECAUTIONS

AIR-SHIELD LM is not designed to perform as a permanently exposed membrane. Keep containers tightly sealed. KEEP FROM FREEZING. Do not apply AIR-SHIELD LM if rainfall is forecast or imminent. Do not apply AIR-SHIELD LM when air, material, and surface temperatures are expected to fall below 30° F (-1° C) within four hours of completed application. Adhesion of membrane on oriented strand board (OSB) can sometimes be affected by the level of surface texture or the presence of wax that is part of the binder used to bond together the wood strands. Prior to placement on OSB, in-situ adhesion tests should be performed to determine suitability of substrate prior to full installation. If there are variations in the OSB surface, multiple tests may be required.

**For BIM models, CAD details, most current data sheet, further LEED information, and SDS, visit [www.wrmeadows.com](http://www.wrmeadows.com).**



### LIMITED WARRANTY

W. R. MEADOWS, INC. warrants at the time and place we make shipment, our material will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. Read complete warranty. Copy furnished upon request.

### Disclaimer

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