PRODUCT DATA

QUALITY | SERVICE | INTEGRITY
W. R. MEADOWS®
A Family Company Since 1926

DATA SHEET NO. 7200-724

AIR-SHIELD™ LM
Liquid Membrane Air/Vapour Barrier and Liquid Moisture Barrier

DESCRIPTION
AIR-SHIELD LM is a fluid-applied, vapour-retarding and water-resistive air barrier. This water-based, polymer-modified composition forms a tough, seamless elastomeric membrane with excellent resistance to air and water-vapour transmission. AIR-SHIELD LM can be applied in two ways – first, as a single-component product for spray and roller application. Alternatively, it can be applied as a co-spray, two-component system in combination with W. R. MEADOWS CURE-IT. Either method will achieve the required nominal 45 mils dry film thickness.

USES
AIR-SHIELD LM has been specifically formulated to act as an air/vapour 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 vapour barrier on precast concrete, cast-in-place concrete, masonry (concrete block), interior and exterior gypsum board, rigid foam insulation, primed steel, aluminum mill finish, anodized aluminum, primed galvanized metal, drywall, and plywood.

FEATURES/BENEFITS
- AIR-SHIELD LM applied through co-spray (utilizing CURE-IT) method develops rapid resistance to rain wash-off and can be applied in cool and damp conditions. Co-spray application method extends seasonal application window.
- Prevents the transmission of air an inhibits moisture and vapour from passing through porous building materials.
- Cost effective - co-spray application allows for single application thickness in a single coat, thereby reducing installation cost.
- Versatile - AIR-SHIELD LM can be applied by two component co-spray or one-component spray or roller.
- Environmentally compatible – AIR-SHIELD LM is non-toxic and non-flammable.
- User friendly – single-component, water-based technology allows for simple, safe application, and easy cleanup. Phthalate-free.
- Liquid-applied – simplifies detailing and assures a monolithic, seamless membrane when applied to a rough or smooth surface.
- Excellent adhesion – remains firmly bonded to most substrates.
- VOC content is 0.0 g/L. Produces no harmful odors. VOC compliant.
- Compatible with other asphalt-based products.

PACKAGING
18.9 Litre (5 U.S. Gallon) Pails
208.2 Litre (55 U.S. Gallon) Drums*
*Available upon special order only

COVERAGE
Application Rate	0.49 m^2 (25 $ft.^2$/gal.)
Wet Film Thickness	65 mil (1.5 mm)
Cured Film Thickness	45 mil (1.15 mm)

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

SHELF LIFE
When stored indoors in original, unopened containers at temperatures between 4° - 32° C, optimum performance and best use is obtained within one year of date of manufacture.

SPECIFICATIONS/STANDARDS
- Meets CAN/CGSB-51-33, Type 1 Water Vapour Permeance Requirements.
- 2015 National Building Code of Canada.
- Exceeds NABA maximum air permeance requirements when tested in accordance with ASTM E2178.
- Exceeds NABA maximum assembly air leakage requirements when tested in accordance with ASTM E2357.
- Complies with Canada VOC Concentration Limits for Architectural Coatings Regulations.

Continued Over …

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TECHNICAL DATA

Air Barrier Material Permeance (ASTM E2178)	0.004 cfm/ft.^{2} (0.02 L/S/M^2)
Air Barrier Assembly Air Leakage (ASTM E2357)	0.04 cfm/ft.^{2} (0.2 L/S/M^2)
% Solids by weight	65
VOC Content	0 g/L
Color	Brown (Wet) Black (Dry)
Elongation (ASTM D412)	1500%
Water Vapor Permeance (ASTM E96, Procedure A)	0.1 Perms
Service Temperature	-20° to 140° F (-29° C to 60° C)
Crack Bridging (ASTM C1305)	Pass
Application Temperature	
Single-Component	>30° F (-1° C)
Two-Component	>20° F (-7° C)[1]

Listed specification data may vary based on ambient and site conditions and differing application methods. As such, differences from the listed data may occur.

Note 1 – Follow cold temperature guide requirements stated below under the section titled Co-Spray Application.

APPLICATION

Before application, obtain full, safe access to the area and mask adjacent surfaces to protect from overspray or drips. Verify that the product is within shelf life, as indicated on the product label. Inspect the freeze indicator on the pallet to verify if it has been broken from exposure to freezing temperatures. Contact W. R. MEADOWS for information on product inspection if the freeze indicator has been broken.

Surface Preparation

Concrete ... Shall be cured in place seven days minimum. It shall be smooth, with sharp protrusions such as cold joints ground flush. 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.

Concrete Masonry Unit (CMU) … Mortar joints shall be struck flush and shall be free of voids. Mortar droppings shall be removed from brick ties. Patch all cracks, protrusions, small voids, offsets, details, irregularities, and small deformities with MEADOW-PATCH 5 or MEADOW-PATCH 20 at least two hours before application.

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. For joint treatment in plywood and OSB sheathing, please see PLYWOOD SHEATHING JOINT DETAIL INSTALLATION GUIDELINES also available at www.wrmeadows.com.

Rough Openings ... Refer to AIR-SHIELD ROUGH OPENINGS INSTALLATION GUIDELINES document available at www.wrmeadows.com for recommendations.

Application Method

Thoroughly, mechanically mix AIR-SHIELD LM prior to application using a low speed (<500 rpm) drill and liquid mixing blade, such as Jiffy Mixer.

Co-Spray Application … Co-spray curative to be used with the AIR-SHIELD LM is CURE-IT. CURE-IT is ready to use, no dilution required. Using proper dual component spray set-up and application methods outlined in the Sprayer Equipment Guidelines for W. R. MEADOWS Co-Spray Fluid-Applied Membranes, spray product onto wall surfaces, holding the gun approximately 508 – 610 mm (20" - 24") from the surface. Spray apply AIR-SHIELD LM onto wall surfaces, holding the gun square to the surface, and using a cross-hatch pattern to apply an even coat. Minimum wet mil thickness achieved in a single coat shall be 65 mils measured with a comb-type wet mil gauge immediately after spray and before the emulsion breaks. Do not apply more than 80 mils wet thickness per coat. In certain applications in direct sun or very hot days, blistering will occur due to outgassing of the water in the membrane. Avoid installation in direct sun, especially on warm days.

Recommended Tip Size for Co-Spray and 1-Part Spray Application: Graco XHD 551.

In cooler temperatures [<40° F (4.4° C)], condition AIR-SHIELD LM to a minimum 50° F (10° C) by storing overnight at 75° F (23.9° C) or higher prior to application. Use a heated trailer drum heater and a heat exchanger to keep the product in drums and lines warm [ideally above 70° F (21.1° C)] during spraying in cold conditions. Properly conditioned product sprays, builds, and cures more consistently than cold product, thereby avoiding potential jobsite issues due to rain, snow, frost, or freezing conditions.

Single Component Spray Application …
Tack-Free film: 2 hours at 75° F (23.9° C) and 50 RH
Dry Film: 48 hours at 75° F (23.9° C) and 50 RH

Do not apply AIR-SHIELD LM when air, material, and surface temperatures are expected to fall below 0º C within 48 hours of completed application.

Co-Spray Application with CURE-IT…
Firm Set: <5 minutes at 24° C) and 50 RH
Dry Film: 12 hours at 24° C and 50 RH

Allow the membrane to dry completely before subjecting it to inspection for air/water leakage and adhesion testing. Drying time varies with substrate, ambient temperature, and humidity. Membrane is dry when it appears black and rubber-like and feels dry when pressed. It is recommended that AIR-SHIELD LM be allowed to air dry to a tack-free film before application of specified insulation. Higher ambient air and surface temperature will affect cohesive and adhesion properties during testing.

Compatibility … Prior to project start, during the initial walk through, identify all membranes, coatings, sealants, tapes, and joint compounds by others which will contact any AIR-SHIELD LM and any accessories products. W. R. MEADOWS offers a complete air/vapor and waterproofing building envelope enclosure system and should be used when possible since compatibility and functionality have already been verified. If not possible to use W. R. MEADOWS system products, verify compatibility with W. R. MEADOWS and the other materials' manufacturer prior to installation. Laboratory verification of compatibility can take up to six weeks.

AIR-SHIELD LM is not compatible with most polyurethanes, soft PVC, or silicones.

If running occurs during application, decrease application thickness and allow coat to dry firm before proceeding. Build 65 mils total wet film thickness in multiple coats. Allow first/previous coat to dry firm before covering with the next application.

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

PRECAUTIONS/LIMITATIONS
Maximum UV exposure period is 30 days. Protect adjacent areas from overspray. Also, when co-spraying, protect area below from water that will release from the drying co-sprayed AIR-SHIELD LM. This may run down the wall and cause potentially staining.

Membrane adhesion on oriented strand board (OSB) can sometimes be affected by the level of surface texture or the presence of wax used in the manufacturing of the panels. To ensure adequate adhesion, in-situ adhesion tests should be performed to determine substrate suitability prior to full installation. If there are variations in the OSB surface, multiple tests may be required.

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.

Guardian of the Structure®
GreenLine® By W. R. MEADOWS
Environmentally Responsible Products for the Building Industry