

## **AIR-SHIELD™ LOW TEMP**

### Self-Adhering Air/Vapor and Liquid Moisture Barrier

#### **DESCRIPTION**

AIR-SHIELD LOW TEMP self-adhering air/vapor and liquid moisture barrier is part of a total W. R. MEADOWS system to complete the building envelope. It is a roll-type product that is nominally 40 mils thick, and is ideal for cold weather applications. The membrane's controlled thickness is fabricated from cross-laminated polyethylene bonded to specially modified asphalt.

This unique, self-adhesive membrane, protected by a special release paper, is strong and durable. It remains flexible when surface mounted and will adhere to most primed surfaces at minimum temperatures of 20° F (-7° C). The membrane provides excellent protection as a tough barrier or flashing that won't shrink, sag, dry out, crack, or rot. It offers excellent resistance to punctures during installation. The self-healing characteristics of AIR-SHIELD LOW TEMP facilitate recovery if minimal damage is sustained under normal use applications, i.e. when penetrated with self-tapping screws or nails.

#### **USES**

AIR-SHIELD LOW TEMP is designed for a variety of uses. Primary applications include cavity wall and masonry wall construction. AIR-SHIELD LOW TEMP works equally well as an air, vapor, and liquid moisture barrier on precast concrete, cast-in-place concrete, masonry (concrete block), interior and exterior gypsum board, Styrofoam, primed steel, aluminum mill finish, anodized aluminum, primed galvanized metal, drywall, and plywood.

#### **FEATURES/BENEFITS**

- Low permeability - prevents the transmission of air and inhibits moisture vapor through porous building materials.
- Superior adhesion, even down to 20° F (-7° C).

- Cross laminated polyethylene film has excellent tensile strength, elongation, and tear resistance.
- Modified membrane is flexible at low temperatures.
- Excellent adhesion to prepared substrates of precast concrete, cast-in-place concrete, masonry (concrete block), interior and exterior gypsum board, Styrofoam, primed steel, aluminum mill finish, anodized aluminum, primed galvanized metal, drywall, and plywood.
- Self-healing characteristics facilitate recovery if minimal damage is sustained under normal use applications.
- No flame required.
- Standard and extra-low temp versions also available.

#### **PACKAGING**

AIR-SHIELD LOW TEMP is packaged in rolls measuring 38.5" (.97 m) x 75' (22.86 m). AIR-SHIELD LOW TEMP can also be cut to desired width.

Optional sizes include:

4" x 75', 6" x 75', 9" x 75', 12" x 75', 16" x 75'  
18" x 75', 20" x 75' and 24" x 75'.

#### **COVERAGE**

Coverage is approximately 240 ft.<sup>2</sup> (22.3 m<sup>2</sup>). Net coverage when lapped 2" (51 mm) is 228 ft.<sup>2</sup> (21.1 m<sup>2</sup>).

#### **STORAGE**

AIR-SHIELD LOW TEMP should be stored palletized and protected from rain and/or physical damage. Do not store at temperatures above 90° F (32.2° C) for extended periods of time. Do not leave membrane exposed to direct sunlight. Do not double-deck pallets. Store away from sparks or flames. Outdoors, store AIR-SHIELD LOW TEMP on pallets and completely cover.

*CONTINUED ON REVERSE SIDE...*

**SPECIFICATIONS**

- Exceeds the requirements of the Massachusetts Commercial Energy Code for Building Envelope Systems.
- Meets CAN/CGSB-51-33, Type I Water Vapor Permeance Requirements.
- 2005 National Building Code of Canada
- ABAA Section 07261 Self-Adhering Air and Vapor Barrier Specification

**MAINTAIN ENERGY EFFICIENCY**

AIR-SHIELD LOW TEMP provides an effective barrier to air exfiltration and infiltration, reducing condensation within the wall assembly and increasing the efficiency of a building's mechanical system. Wet insulating materials lose much of their "R" factor performance characteristics, reducing the energy efficiency of the structure. W. R. MEADOWS thermal and moisture protection products play a key role in *maintaining* the structure's energy efficiency and aiding in the integrity of other structural systems, such as insulation.

<b>Tensile Strength Film</b> ASTM D 412 modified (MD): ASTM D 882 (MD): lb/in.	4000 psi (27.6 MPa) 23.5 lb/in. (4.1 N/mm)
<b>Elongation Film:</b> ASTMD412 modified (MD, %): ASTM D 882, (MD, %):	400 (Typical) 400 Min.
<b>Puncture Resistance:</b> ASTM E 154	40 lbf (178 N) Min.
<b>Water Vapor Permeance (free film)</b> ASTM E-96, Procedure B	0.035 Perms
<b>Water Absorption (% by weight):</b> ASTM D 1970 ASTM D 570-81	0.25 Max 0.1 Max.
<b>Application Temperature:</b>	20° F (-7° C) Min.
<b>Low Temperature Flexibility @ -22° F (-30° C) (CGSB 37-gp-56m)</b>	PASS
<b>Service Temperature</b>	-40° F to 158° F
<b>Lap Peel Strength @ 39° F (4° C) (ASTM D 903, 180 Bend)</b>	10 lbf/in width (1.75 N/mm)

**TECHNICAL DATA**

Test	Results
<b>Color:</b>	White
<b>Thickness:</b>	40 mils. (1 mm)
<b>Pliability @ -25° F (-32° C)</b>	No effect

**Air Leakage (Tested per ASTM E 283)**

Pressure		Air Leakage (National Building Code of Canada Requirement)	Air Leakage (National Building Code of Canada Requirement)	Results for AIR-SHIELD LOW TEMP
Pa	lb./sq. ft.	L/S/sq. m	cfm/sq. ft.	
<b>75</b>	<b>1.57</b>	<b>0.02</b>	<b>0.004</b>	<b>Meets</b>

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Pa	lb./sq. ft.	L/S/sq. m	cfm/sq. ft.	
<b>75</b>	<b>1.57</b>	<b>0.02</b>	<b>0.004</b>	<b>Less than 0.004</b>



## APPLICATION

**Surface Preparation ...** All surfaces to be protected must be clean, dry, frost-free, and smooth. Remove any sharp protrusions and repair all defects. Prepare substrate per manufacturer's instruction prior to application of membrane.

All surfaces to receive AIR-SHIELD LOW TEMP must be clean of oil, dust, and excess mortar. Strike masonry joints flush. Concrete surfaces must be smooth and without large voids, spalled areas, or sharp protrusions. Concrete must be cured a minimum of 14 days and must be dry before AIR-SHIELD LOW TEMP is applied. Where curing compounds are used, they must be clear resin-based, without oil, wax, or pigments.

**Surface Conditioning ...** All surfaces to which AIR-SHIELD LOW TEMP is to be applied must be addressed. MEL-PRIME™ W/B water-based primer can be used when temperatures are above 40° F (4° C). Use MEL-PRIME adhesive in colder weather and at higher application temperatures for maximum adhesion. MEL-PRIME may be applied with a roller to an area that is to be covered the same day. Uncovered areas must be re-applied with MEL-PRIME the next day. See product container for complete application, drying information and precautions.

**Application Method ...** AIR-SHIELD LOW TEMP can be applied at minimum temperatures of 20° F (-7° C). Apply membrane to primed surface by removing the release paper and rolling the membrane firmly into place. Remove the release paper only as the membrane is being applied. Ensure the membrane is fully adhered and remove all wrinkles and/or fish mouths. Cut the membrane with a utility knife to detail around protrusions and masonry reinforcing. Seal all end laps and protrusions with POINTING MASTIC. Overlap subsequent courses of membrane a minimum of 2" (51 mm). Vertical terminations of AIR-SHIELD LOW TEMP should either be tied into the wall system or mechanically fastened with TERMINATION BAR. AIR-SHIELD LOW TEMP is not designed for permanent exposure. Good construction practices call for application of insulation as soon as possible to protect the air barrier.

**Cleanup ...** Tools, etc., can be cleaned with mineral spirits, paint thinner or aromatic solvent.

## HEALTH AND SAFETY

No adverse effects expected with normal product use. Cotton work gloves and safety glasses are recommended. Refer to Safety Data Sheet for complete health and safety information.

## BELOW-GRADE PROTECTION:

W. R. MEADOWS offers the following moisture and vaporproofing products, providing the specifying authority a single-source system for the entire building envelope:

PREMOULDED MEMBRANE® VAPOR SEAL WITH PLASMATIC® CORE (PMPC) for horizontal vaporproofing applications.

MEL-ROL® waterproofing membrane.

MEL-PRIME W/B water-based primer for basic above- and below-grade priming requirements.

MEL-DRAIN™ rolled matrix drainage system is designed to protect vaporproofing and waterproofing membranes in either horizontal or vertical applications.

## ACCESSORIES

**MEL-PRIME W/B ...** Water-based primer prepares concrete surfaces for AIR-SHIELD LOW TEMP membrane application. Ready to use; requires no additional mixing. MEL-PRIME W/B emits no unpleasant odors and works with all waterproofing membranes from W. R. MEADOWS. Can be applied easily by manual spraying or with a roller. VOC-compliant. MEL-PRIME W/B is ideal for use at temperatures of 40° F (4° C) and above.

Coverage: 150 - 200 ft.<sup>2</sup>/gal. (3.7 - 4.9 m<sup>2</sup>/L)

Packaging: 1 Gal. (3.79 L) Units, 4/Carton and 5 Gal. (18.93 L) Pails

**MEL-PRIME ...** This solvent-based adhesive can be used at temperatures down to 0° F (-18° C) and above. Can be applied by roller.

Coverage: 250 - 300 ft.<sup>2</sup>/gal. (6.14 - 7.4 m<sup>2</sup>/L)

Packaging: 1 Gal. (3.79 L) Units and 5 Gal. (18.93 L) Pails

**POINTING MASTIC ...** Used for sealing top edges of TERMINATION BAR.

Coverage: Approximately 200 lineal ft. (61 m) per gallon (3.79 L) when used as directed.

Packaging: 5 Gallon (18.93 L) Pails or 29 Oz. (857.65 mL) Cartridges, 12/Carton

## LEED INFORMATION

May help contribute to LEED credits:

- EA Credit 1: Optimize Energy Performance
- IEQ Credit 3.1: Construction Indoor Air Quality Management Plan: During Construction
- IEQ Credit 4.2: Low-Emitting Materials: Paints & Coatings
- IEQ Credit 7.1: Thermal Comfort – Design
- MR Credit 2: Construction Waste Management
- MR Credit 5: Regional Materials



### **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**

The information contained herein is included for illustrative purposes only, and to the best of our knowledge, is accurate and reliable. W. R. MEADOWS, INC. cannot however under any circumstances make any guarantee of results or assume any obligation or liability in connection with the use of this information. As W. R. MEADOWS, INC. has no control over the use to which others may put its product, it is recommended that the products be tested to determine if suitable for specific application and/or our information is valid in a particular circumstance. Responsibility remains with the architect or engineer, contractor and owner for the design, application and proper installation of each product. Specifier and user shall determine the suitability of products for specific application and assume all responsibilities in connection therewith.