



## DATA SHEET NO. 5115-300

### **AIR-SHIELD™ LOW TEMP** **Self-Adhering Air/Vapour and Liquid Moisture Barrier**

#### **DESCRIPTION**

AIR-SHIELD LOW TEMP self-adhering, air/vapour 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 -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, vapour, 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, plywood, and OSB.

#### **FEATURES/BENEFITS**

- Low permeability - prevents the transmission of air and inhibits moisture vapour through porous building materials.
- Superior adhesion, even down to -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 0.97 m (38.5") x 22.86 m (75'). AIR-SHIELD LOW TEMP can also be cut to desired width.

Optional sizes include 10.1 cm (4"), 15.2 cm (6"), 22.8 cm (9"), 30.5 cm (12"), 40.6 cm (16"), 45.7 cm (18"), 50.8 cm (20") and 61 cm (24"), all 22.86 m (75') long.

#### **COVERAGE**

Coverage is approximately 22.3 m<sup>2</sup> (240 ft.<sup>2</sup>). Net coverage when lapped 63.5 mm (2.5") is 20.9 m<sup>2</sup> (225 ft.<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 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.

#### **SPECIFICATIONS**

- Meets CAN/CGSB-51-33, Type I Water Vapour Permeance Requirements
- 2015 National Building Code of Canada
- ABAA Section 07261 Self-Adhering Air and Vapour Barrier Specification

Continued over ...

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## MAINTAIN ENERGY EFFICIENCY

AIR-SHIELD LOW TEMP provides an effective barrier to air exfiltration and infiltration, reducing condensation within the wall assembly and increasing 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.

TECHNICAL DATA	
TEST	RESULTS
Colour	White
Thickness	40 mils (1 mm)
Pliability @ -32° C (-25° F)	No effect
Tensile Strength Film	
ASTM D412 modified (MD)	27.6 MPa (4,000 psi)
ASTM D882 (MD)	4.1 N/mm (23.5 lb./in.)
Elongation Film	
ASTM D412 modified (MD, %)	400 (Typical)
ASTM D882 (MD, %)	400 Min.
Puncture Resistance	
ASTM E154	178 N (40 lbf) Min.
Water Vapour Permeance (free film)	
ASTM E96, Procedure B	0.035 Perms
Water Absorption (% by weight)	
ASTM D1970	0.25 Max.
ASTM D570-81	0.1 Max.
Application Temperature	-7° C (20° F) Min.
Low Temperature Flexibility @ -30° C (CGSB 37-GP-56m)	PASS
Service Temperature	-40° - 70° C
Lap Peel Strength @ 4° C (ASTMD 903, 180° Bend)	1.75 N/mm (10 lbf/in) width
Pressure	75 Pa (1.57 lb./ft. <sup>2</sup> )
Air Permeability @ 75 Pa (ASTM E2178-01)	<0.02 L/s.m <sup>2</sup> @ 75 Pa (<0.004 cfm/ft. <sup>2</sup> @ 1.56 lb./ft. <sup>2</sup> )
Air Leakage (ASTM E2357)	<0.2 L/s.m <sup>2</sup> @ 75 Pa (<0.04 cfm/ft. <sup>2</sup> @ 1.56 lb./ft. <sup>2</sup> )

## 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. All walls to receive AIR-SHIELD LOW TEMP must be capped to prevent moisture infiltration from entering the wall during construction. 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 adhesive can be used when temperatures are above 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 -7° C. Apply membrane to addressed 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 63.5 mm (2.5"). Vertical terminations of AIR-SHIELD LOW TEMP should either be tied into the wall system or mechanically fastened with TERMINATION BAR from W. R. MEADOWS. 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.

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**WARRANTY:** W. R. Meadows of Western Canada warrants that, at the time and place we make shipment, our materials will be of good quality and will conform with our published specifications in force on the date of acceptance of the order. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM OF TRADE OR OTHERWISE. As the exclusive remedy for breach of this Warranty, we will replace defective materials, provided, however, that the buyer examine the materials when received and promptly notify us in writing of any defect before the materials are used or incorporated into a structure. Three (3) months after W. R. Meadows of Western Canada has shipped the materials, all our Warranty and other duties with respect to the quality of the materials delivered shall conclusively be presumed to have been satisfied, all liability therefore terminates and no action for breach of any such duties may thereafter be commenced. W. R. Meadows of Western Canada shall in no event be liable for consequential damages. Unless otherwise agreed to in writing, no warranty is made with respect to materials not manufactured by W. R. Meadows of Western Canada. We cannot warrant or in any way guarantee any particular method of use or application or the performance of materials under any particular condition. Neither this Warranty nor our liability may be extended or amended by our salesmen, distributors or representatives, or by our distributor's representatives, or by any sales information or drawings.

**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 goggles are recommended. Refer to Safety Data Sheet for complete health and safety information.

### ACCESSORIES

**MEL-PRIME W/B** ... Water-based adhesive prepares concrete surfaces for AIR-SHIELD LOW TEMP membrane application. Product is ready to use and requires no additional mixing. MEL-PRIME W/B emits no unpleasant odours 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 4° C and above.

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

Packaging: 3.79 Litre (1 U.S. gallon) Units, 4/Cartron and 18.93 Litre (5 U.S. gallon) Pails.

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

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

Packaging: 3.79 Litre (1 U.S. gallon) Units and 18.93 Litre (5 U.S. gallon) Pails.

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

Coverage: Approximately 61 meters (200 lineal feet) per 3.79 litres (1 U.S. gallon) when used as directed.

Packaging: 18.93 Litre (5 U.S. gallon) Pails or 857.65 mL (29 oz.) Cartridges, 12/Cartron.

### MASTERFORMAT NUMBER AND TITLE

07 27 13 - Modified Bituminous Sheet Air Barriers

### PRECAUTIONS

The rubberized asphaltic membrane component (soft black side) may not be compatible with most polyurethanes or silicones. W. R. MEADOWS offers a line of approved products as part of our complete system. Please reference the appropriate detail for your specific application. When used with other products than recommended, ensure compatibility through either testing or written approval from the manufacturer.

### LEED INFORMATION

May help contribute to LEED credits:

- EAp2: Minimum Energy Performance
- EAc2: Optimize Energy Performance
- MRc9: Construction and Demolition Waste Management

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

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