



DATA SHEET NO. 5115-675

AIR-SHIELD™ XLT

Self-Adhering Air/Vapour and Liquid Moisture Barrier

DESCRIPTION

AIR-SHIELD XLT extra-low temp self-adhering air 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 -18° 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 XLT facilitate recovery if minimal damage is sustained under normal use applications; i.e., when penetrated with self-tapping screws or nails.

USES

AIR-SHIELD XLT self-adhering air/vapour and liquid moisture barrier is designed for a variety of uses. Primary applications include cavity wall and masonry wall construction. AIR-SHIELD XLT 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, 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 vapour through porous building materials.
- Superior adhesion, even down to -18° 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-sealing around fasteners; for more information, see TECHNICAL BULLETIN: FASTENER PENETRATION THROUGH AIR-SHIELD MEMBRANES at www.wrmeadows.com.
- No flame required.

PACKAGING

AIR-SHIELD XLT is packaged in rolls measuring 0.97 m (38.5") x 22.86 m (75'). AIR-SHIELD XLT can also be cut to desired width.

Optional sizes include 101.60 mm (4"), 152.4 mm (6"), 228.6 mm (9"), 304.8 mm (12"), 406.4 mm (16"), 457.2 mm (18"), 508 mm (20") and 609.6 mm (24").

STORAGE

AIR-SHIELD XLT 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 XLT on pallets and completely cover.

COVERAGE

Coverage is approximately 22.3 m² (240 ft.²). Net coverage when lapped 63.5 mm (2.5") is 21.1 m² (228 ft.²).

SPECIFICATIONS

- Meets CAN/CGSB-51-33, Type I Water Vapour Permeance Requirements.
- 2015 National Building Code of Canada

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MAINTAIN ENERGY EFFICIENCY

AIR-SHIELD XLT 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.

TECHNICAL DATA	
TEST	RESULTS
Colour	White
Thickness	40 mils (1 mm)
Pliability @ -32° C	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	-18° C Min.
Low Temperature Flexibility @ (-30° C) (CGSB 37GP56m)	PASS
Service Temperature	-40° - 70° C
Lap Peel Strength @ 4° C (ASTM D903, 180° Bend)	1.75 N/mm (10 lbf/in) width

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 XLT 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 XLT is applied. Where curing compounds are used, they must be clear resin-based, without oil, wax, or pigments.

Conditioning ... All surfaces to which AIR-SHIELD XLT is to be applied must be conditioned. Use MEL-PRIME™ from W. R. MEADOWS 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-conditioned the next day. See MEL-PRIME container for complete application, drying information, and precautions.

Application Method ... AIR-SHIELD XLT can be applied at minimum temperatures of -18° 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 from W. R. MEADOWS. Overlap subsequent courses of membrane a minimum of 63.5 mm (2.5"). Vertical terminations of AIR-SHIELD XLT should either be tied into the wall system or mechanically fastened with TERMINATION BAR from W. R. MEADOWS. AIR-SHIELD XLT is not designed for permanent exposure. Good construction practices call for application of insulation as soon as possible to protect the air barrier.

Air Leakage Tested per ASTM E283, ASTM E2178-01, and ASTM E2357

Pressure		Air Leakage (National Building Code of Canada Requirement)	Results for AIR-SHIELD	Air Leakage (National Building Code of Canada Requirement)	Results for AIR-SHIELD
Pa	Lb./ft. ²	L/S/M. ²		cfm/ft. ²	
75	1.57	0.02	<0.02	0.004	<0.004

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 ... Adhesive can be used at temperatures down to -18° C and above. .

TERMINATION BAR ... As an option, **TERMINATION BAR** may be used to mechanically fasten the membrane.

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

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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.

MASTERFORMAT NUMBER AND TITLE

07 27 13 - Modified Bituminous Sheet Air Barriers

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, CAD details, most current data sheet, and further LEED information, visit www.wrmeadows.com.



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