MasterFormat: 07 27 13

FEBRUARY 2019
(Supersedes November 2006)

AIR-SHIELD™ XLT

Self-Adhering Air/Vapor 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 0° F (-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/vapor 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 vapor 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 0º F(-18º C).
- Cross laminated polyethylene film has excellent tensile strength, elongation and tear resistance.

Modified membrane is flexible at low temperatures.

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- 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 38.5" (.97 m) x 75' (22.86 m). AIR-SHIELD XLT can also be cut to desired width.

Optional widths are 4" (101.6 mm), 6" (152.4 mm), 9" (228.6 mm), 12" (304.8 mm), 16" (406.4 mm), 18" (457.2 mm), 20" (508 mm), and 24" (609.6 mm).

STORAGE

AIR-SHIELD XLT should be stored palletized and protected from rain and/or physical damage. Do not store at temperatures above 90º F (32.2º 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 240 ft.^{2} (22.3 m^2). [Net coverage when lapped 2.5” (63.5 mm) is 228 ft.^{2} (21.1 m^2.)]

SPECIFICATIONS

- Exceeds the requirements of the Massachusetts Commercial Energy Code For Building Envelope Systems.
- ABAA Section 07261 Self-Adhering Air and Vapor Barrier Specification

CONTINUED ON THE REVERSE SIDE...

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TECHNICAL DATA

Test	Results
Color:	White
Thickness:	40 mils. (1mm)
Pliability @ -25° F (-32° C)	No effect
Tensile Strength Film ASTM D412 modified (MD): ASTM D882 (MD):	 4000 psi (27.6 MPa) 23.5 lb/in. (4.1 N/mm)
Elongation Film: ASTM D412 modified (MD, %): ASTM D882, (MD, %):	 400 (Typical) 400 Min.
Puncture Resistance: ASTM E154	 40 lbf (178 N) Min.
Water Vapor Permeance (free film) ASTM E96, Procedure B	 0.035 Perms
Water Absorption (% by weight): ASTM D1970 ASTM D570-81	 0.25 Max 0.1 Max.
Application Temperature:	0° F (-18° C) Min.
Low Temperature Flexibility @ -22° F (-30° C) (CGSB 37-gp-56m)	PASS
Service Temperature	-40° - 158° F (-40° - 70° C)
Lap Peel Strength @ 39° F (4° C) (ASTM D903, 180 Bend)	10 lbf/in width (1.75 N/mm)

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.

AIR LEAKAGE (Tested per ASTM E283)

Pressure		Air Leakage (National Building Code of Canada Requirement)	Air Leakage (National Building Code of Canada Requirement)	Results for AIR-SHIELD XLT
Pa	lb./ft.^{2}	L/S/M^2	cfm/ft.^{2}	
75	**1.57**	**0.02**	**0.004**	**Meets**

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Pa	lb./ft.^{2}	L/S/M^2	cfm/ft.^{2}	
75	**1.57**	**0.02**	**0.004**	**<0.004**

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 0º F (-18º C). Apply membrane to conditioned 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 2.5" (63.5 mm) 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 and/or flashing.

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.

ACCESSORIES

MEL-PRIME ... Adhesive can be used at temperatures down to 0° F (-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.

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.

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, CAD details, most recent data sheet, further LEED information, and SDS, visit 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

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.