

# SILVERSARK® xR BREATHER

HEAVY DUTY

DOUBLE SIDED REFLECTIVE INSULATION EXTRA R-VALUE WALL WRAP



LOW VAPOUR BARRIER / VAPOUR RETARDER / REFLECTIVE SEMI-PERMEABLE MEMBRANE

**Product Code: HD-XR-B | I/N: 0811319**

SILVERSARK® xR BREATHER is a Heavy Duty double-sided reflective semi-permeable building membrane, designed to reduce the risk of interstitial condensation in building systems. Classified as Low Vapour Barrier, a dense pattern of micro-perforations allows water vapour to escape from the wall structure while restricting the ingress of liquid water.

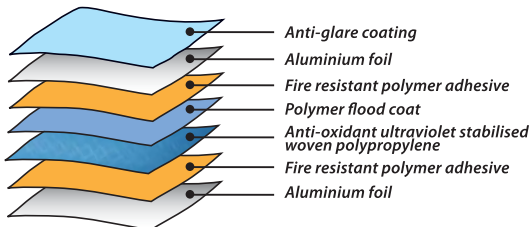
When installed facing an air space, the low emittance reflective membrane offers extra R-value, providing increased thermal resistance in your building structure.

SILVERSARK® xR BREATHER is ideal for use in brick veneer wall systems.

- ✓ Extra R-value
- ✓ Low flammability
- ✓ High strength, light weight
- ✓ Low Vapour Barrier

## Construction

SILVERSARK® xR BREATHER is a seven-layer construction with an extremely tough woven polymer fabric core. A dense pattern of micro-perforations enables SILVERSARK® xR BREATHER to achieve a Water Vapour Transmission (WVT) rate of 40.6 grams per square metre per 24 hours under standard test conditions. The very small holes do not allow water to pass through under low pressure.



Ametalin utilises Advanced Laminating Technology; the polymer adhesive remains tacky for an indefinite period and provides superior resistance to heat, fire and delamination.

NOTE: SILVERSARK® xR BREATHER is not classified as a High Water Barrier under AS/NZS 4200.1:1994 *Pliable building membranes and underlays, Part 1: Materials*, which requires testing under a 100 mm water column.

## Application

SILVERSARK® xR BREATHER is designed for use as a breather wall wrap and semi-permeable membrane in residential, commercial and office buildings, in regions of Australia south of the Tropic of Capricorn (NCC/BCA Climate Zones 2-6). Durability may be affected by environmental factors, including airborne pollutants, if used in industrial or farm buildings.

## Tear Resistance

SILVERSARK® xR BREATHER is guaranteed to meet or exceed the minimum performance levels for Heavy Duty rating required under AS/NZS 4200.1:1994.

	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	80 N	410 N / 25 mm
Lateral direction edge tear resistance	80 N	358 N / 25 mm

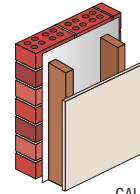
\* Minimum value required to qualify as Heavy Duty under AS/NZS 4200.1:1994

## DECLARED TOTAL SYSTEM R-VALUES

The contribution of this product to the total R-value depends on installation and environmental conditions. The R-value will be reduced in the event of the accumulation of dust on upward facing surfaces and in those cavities that are ventilated.

### BRICK VENEER

with one layer of SILVERSARK® xR BREATHER

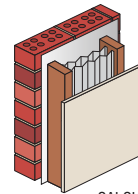


CALCULATION REF: 299w37

WINTER  $R_T 1.8$  SUMMER  $R_T 1.6$

### BRICK VENEER

with one layer of SILVERSARK® xR BREATHER + two layers of PLEATED SILVERBATTS™

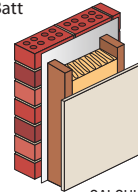


CALCULATION REF: 299w326

WINTER  $R_T 4.0$  SUMMER  $R_T 3.5$

### BRICK VENEER

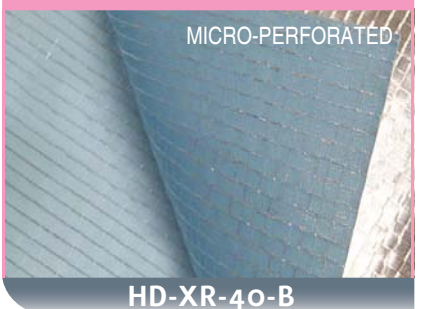
with one layer of SILVERSARK® xR BREATHER + R2.5 Fibrous Batt



CALCULATION REF: 299w3011

WINTER  $R_T 3.7$  SUMMER  $R_T 3.4$

## SILVERSARK® xR BREATHER



HD-XR-40-B



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# SILVERSARK® xR BREATHER

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## Classification

SILVERSARK® xR BREATHER classifications under AS/NZS 4200.1:1994

PRODUCT		SILVERSARK® xR BREATHER	AS/NZS 4200.1:1994
FLAMMABILITY INDEX	AS 1530.2-1993	Low	Low ≤ 5
DUTY	AS/NZS 4200.1:1994	Heavy	Classification
EMITTANCE	AS/NZS 4201.5:1994	Bright side: 0.03 Anti-glare side: 0.07	Value
REFLECTIVITY	AS/NZS 4200.1:1994	Bright side: 97% Anti-glare side: 93%	Value
RESISTANCE TO WATER PENETRATION	AS/NZS 4201.4:1994	Unclassified	Classification
VAPOUR BARRIER	ASTM E96	Low, PROCEDURE B, WET CUP TEST	Classification
MACHINE DIRECTION TENSILE STRENGTH	AS 1301.448s-91	13.4 kN/m	Min 12.5 kN/m
LATERAL DIRECTION TENSILE STRENGTH	AS 1301.448s-91	10.0 kN/m	Min 7.5 kN/m
MACHINE DIRECTION EDGE TEAR	TAPPI T 470 om-89	410 N	Min 80 N
LATERAL DIRECTION EDGE TEAR	TAPPI T 470 om-89	358 N	Min 80 N
RESISTANCE TO DRY DELAMINATION	AS/NZS 4201.1:1994	Pass	Pass
RESISTANCE TO WET DELAMINATION	AS/NZS 4201.2:1994	Pass	Pass
SHRINKAGE (REPEATED WETTING & DRYING)	AS/NZS 4201.3:1994	< 0.1%	< 0.5%

WATER VAPOUR TRANSMISSION RATE: 40.6 g/m<sup>2</sup>·24hr (23°C, 50% RH)AMETALIN CLASSIFICATION: LOW VAPOUR BARRIER  
VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

## Vapour Barrier Properties

SILVERSARK® xR BREATHER has a Water Vapour Transmission (WVT) rate of 40.6 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 3.04 MN·s/g. Ametalin classification is vapour retarder/semi-permeable membrane. Vapour retarders/semi-permeable membranes can be specified for use under linings in buildings in temperate climate zones south of the Tropic of Capricorn (NCC/BCA Climate Zones 2-6#).

# A detailed hygrothermal analysis is recommended for moisture control in building design.

## NCC/BCA Compliant

SILVERSARK® xR BREATHER complies with AS/NZS 4859.1:2002 Amdt 1:2006 and AS/NZS 4200.1:1994, and therefore meets all the requirements of the *National Construction Code* and *Building Code of Australia* for insulation and pliable building membranes.

## BUSHFIRE ATTACK LEVELS

SILVERSARK® xR BREATHER complies with AS 3959-2009 *Construction of buildings in bushfire-prone areas* for use in wall systems BAL – LOW to BAL – FZ.

## Total System R-values

R-values apply to typical conditions for mainland Australian capital cities and have been calculated by an independent consulting engineer in accordance with AS/NZS 4859.1:2002/Amdt 1:2006. For detailed design of building systems, seek advice based on actual site conditions from a qualified licensed engineer.

## Reflectivity

SILVERSARK® xR BREATHER is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03 to one side and 93% reflectivity and emissivity of 0.07 to the other, in compliance with *ASTM Standard E 408-71 (Re-approved 2002)*.

## Storage

This product should be stored under cover in a clean, dry place in the pack provided.

## Dimensions

SILVERSARK® xR BREATHER is sold in size:  
1350 mm x 30 m (40.5 m<sup>2</sup>)

## Specification Notes

When specifying, state the following:

**Product Name:** SILVERSARK® xR BREATHER

The insulation to be installed shall be SILVERSARK® xR BREATHER double-sided reflective laminate with anti-glare, emittance bright side 0.03, anti-glare side 0.07. Product is manufactured by Ametalin and shall be installed in accordance with AS/NZS 4200.2: 1994 *Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

Emittance Bright Side: 0.03, Anti-glare Side: 0.07  
Water Vapour Transmission (WVT): 40.6 g/m<sup>2</sup>·24hr  
Vapour Resistance: 3.04 MN·s/g  
Vapour Barrier Classification: Low  
Water Barrier Classification: Unclassified  
Duty: Heavy in accordance with AS/NZS 4200.1:1994

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Manufacturers of building membranes | insulation products | flexible packaging



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## Health and Safety Information

Ametalin has assessed SILVERSARK® xR BREATHER according to the criteria outlined in the *National Occupational Health and Safety Commission (NOHSC):1008 (1998)* and *NOHSC: 1005 (1999)*. As a result of the assessment, this product is classified as non-hazardous according to the NOHSC criteria. To reduce risk of UV damage when installing this product, wear protective clothing, safety glasses and sunscreen, and work in the shade wherever practical.

## Installation

### ELECTRICAL SAFETY PRECAUTIONS - BEFORE YOU START:

**Ametalin stresses the importance of safe installation practices for foil-based insulation as critical to installer and consumer safety. Aluminium Foil Insulation Association Inc. (AFIA) has prepared Work Method Statements and Hazard Management forms to assist contractors and installers in safe installation of reflective insulation products. These documents are available under 2009 AFIA WMS & Hazard Management, at [www.afia.com.au/news/health-and-safety/](http://www.afia.com.au/news/health-and-safety/).**

SILVERSARK® xR BREATHER should be installed in accordance with *AS/NZS 4200.2: 1994 Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

### GENERAL

SILVERSARK® xR BREATHER is not designed to withstand prolonged direct exposure to the elements. Accordingly, the outer construction envelope should be installed without delay. Aluminium foil should not come into contact with wet concrete or mortar, as the aluminium is susceptible to alkali corrosion. If installed within 500 metres of the sea, or in non-residential buildings where foil surfaces may be exposed to a corrosive atmosphere (including agricultural sheds), foil surfaces should face an enclosed, un-vented air space. To ensure optimum thermal insulation performance, as well as satisfactory durability, an air space adjacent to each side of the product is recommended.

### TIMBER & STEEL FRAMED CONSTRUCTION:

- ▶ BRICK VENEER
- ▶ REVERSE BRICK VENEER

SILVERSARK® xR BREATHER should be installed horizontally as a continuous membrane by fixing to all framing members with the printed anti-glare blue side facing out. SILVERSARK® xR BREATHER should extend from the top plate to the bottom plate on concrete slabs or bearers in timber construction. Fixings are to be no more than 450 mm apart and should be galvanised clouts or staples for fastening to timber construction and tech screws for fastening to steel constructions. In high wind areas, it is recommended to install using flat punched multi-point fasteners or cap screws. Horizontal, vertical and end overlaps must be 150 mm if not taped or 50 mm taped with Ametalin Insulation/Ducting Tape, with all top layers overlapping the outside of lower layers to prevent water ingress. Stagger any vertical overlaps. Any damage made to SILVERSARK® xR BREATHER during installation including holes and tears must be repaired with Ametalin Insulation/Ducting Tape or a large overlapped piece of SILVERSARK® xR BREATHER.

### DOUBLE BRICK AND MASONRY CAVITY WALLS

After the outer leaf of the double brick or masonry cavity wall is laid, place Ametalin Cavity Spacers™ onto the brick ties via the vertical slit provided, with the white adhesive side facing outwards. Install one cavity spacer per square metre to ensure the required air space. Remove adhesive tape backing. Install SILVERSARK® xR BREATHER horizontally, cut slits through the pliable building membrane at all brick tie positions, place SILVERSARK® xR BREATHER into position over the brick ties. Push the membrane and the cavity spacer into position against the outer back leaf.

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