

SILVERWRAP™ BREATHER

LIGHT DUTY
REFLECTIVE INSULATION WALL WRAP



LOW VAPOUR BARRIER / VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

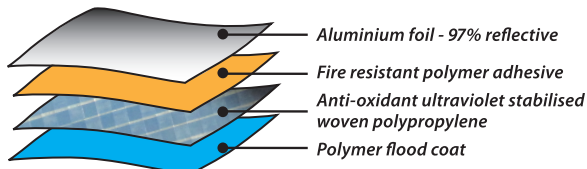
Product Code: LD-B

SILVERWRAP™ BREATHER is a Light Duty semi-permeable membrane and vapour retarder, 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. SILVERWRAP™ BREATHER is ideal for use in double brick and brick veneer wall systems.

- ✓ 97% Reflective
- ✓ High strength, light weight
- ✓ Low flammability
- ✓ Low Vapour Barrier

Construction

SILVERWRAP™ BREATHER is a flexible four layer product made with a combination of anti-oxidant ultra-violet stabilised woven polypropylene, 97% reflective aluminium foil, and fire-resistant polymer adhesive. A dense pattern of micro-perforations enables SILVERWRAP™ BREATHER to achieve Low Vapour Barrier classification, while restricting the passage of water 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: SILVERWRAP™ BREATHER is not classified as a High Water Barrier under AS/NZS 4200.1:2017 *Pliable building membranes and underlays, Part 1: Materials*, which requires testing under a 100 mm water column.

Application

SILVERWRAP™ BREATHER is designed for use as a breather wall wrap and vapour retarder in residential, commercial and office buildings in all regions of Australia.

NOTE: Low Vapour Barrier wall wraps are suitable for temperate climate zones. Durability may be affected by environmental factors, including chemical and airborne pollutants, if used in industrial or farm buildings.

Tear Resistance

SILVERWRAP™ BREATHER is an extremely lightweight product with superior tear resistance. SILVERWRAP™ BREATHER is guaranteed to meet or exceed the minimum performance levels for Light Duty rating required under AS/NZS 4200.1:2017.

	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	45 N	373 N / 25 mm
Lateral direction edge tear resistance	45 N	338 N / 25 mm

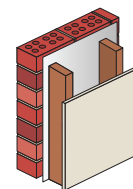
* Minimum value required to qualify as Light Duty under AS/NZS 4200.1:2017.

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 SILVERWRAP™ BREATHER

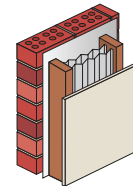


CALCULATION REF: 299r3221

WINTER R_T 1.3 SUMMER R_T 1.2

BRICK VENEER

with one layer of SILVERWRAP™ BREATHER + two layers of PLEATED SILVERBATTS™

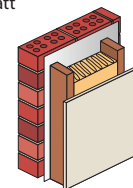


CALCULATION REF: 299w3225b

WINTER R_T 3.4 SUMMER R_T 3.0

BRICK VENEER

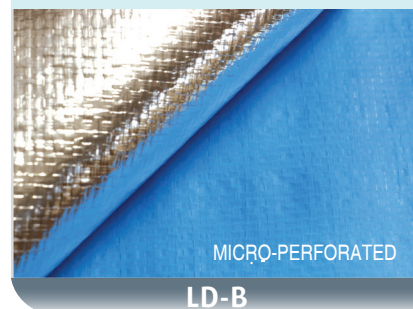
with one layer of SILVERWRAP™ BREATHER + R2.5 Fibrous Batt



CALCULATION REF: 299w50

WINTER R_T 3.2 SUMMER R_T 3.0

SILVERWRAP™ BREATHER



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LIGHT DUTY

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Classification

SILVERWRAP™ BREATHER classifications in accordance with AS/NZS 4200.1:2017

PRODUCT		SILVERWRAP™ BREATHER	AS/NZS 4200.1:2017
FLAMMABILITY INDEX	AS 1530.2-1993	Low	Low ≤ 5
DUTY	AS/NZS 4200.1:2017	Light	Classification
EMITTANCE	AS/NZS 4201.5:1994	0.03	Value
REFLECTIVITY		97%	Value
RESISTANCE TO WATER PENETRATION	AS/NZS 4201.4:1994	Unclassified	Classified
VAPOUR BARRIER	ASTM E96	Low, PROCEDURE B, WET CUP TEST	Classification
MACHINE DIRECTION TENSILE STRENGTH	AS 1301.448s-91	8.9 kN/m	Min 7.5 kN/m
LATERAL DIRECTION TENSILE STRENGTH	AS 1301.448s-91	7.3 kN/m	Min 4.5 kN/m
MACHINE DIRECTION EDGE TEAR	TAPPI T 470 om-89	373 N	Min 45 N
LATERAL DIRECTION EDGE TEAR	TAPPI T 470 om-89	338 N	Min 45 N
BURSTING STRENGTH	AS 2001.2.19	366 N	Min 200 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	0.0%	< 0.5%

WATER VAPOUR TRANSMISSION RATE: 55.2 g/m²·24hr (23°C, 50% RH)

AMETALIN CLASSIFICATION: LOW VAPOUR BARRIER
VAPOUR RETARDER / SEMI-PERMEABLE MEMBRANE

Vapour Barrier Properties

SILVERWRAP™ BREATHER has a Water Vapour Transmission (WVT) rate of 55.2 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 4.11 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 Climate Zones 2 - 6#).

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

NCC Compliant

SILVERWRAP™ BREATHER complies with AS/NZS 4859.1:2002/ Amdt 1:2006 and AS/NZS 4200.1:2017, and therefore meets all the requirements of the *National Construction Code* for insulation and pliable building membranes.

BUSHFIRE ATTACK LEVELS

SILVERWRAP™ 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

SILVERWRAP™ BREATHER is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03 in compliance with AS/NZS 4200.1:2017.

Storage

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

Dimensions

SILVERWRAP™ BREATHER is sold in size:
1350 mm x 60 m (81 m²)

Specification Notes

When specifying state the following:

Product Name: SILVERWRAP™ BREATHER Light Duty

The insulation to be installed shall be SILVERWRAP™ BREATHER Light Duty micro-perforated single-sided reflective laminate, emittance bright side 0.03. Product is manufactured by Ametalin and shall be installed in accordance with AS 4200.2:2017 *Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

Emittance Bright Side: 0.03

Water Vapour Transmission (WVT): 55.2 g/m²·24hr

Vapour Resistance: 2.24 MN·s/g

Vapour Barrier Classification: Low

Water Barrier Classification: Unclassified

Duty: Light in accordance with AS/NZS 4200.1:2017

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AUSTRALIAN DESIGNED, AUSTRALIAN OWNED.

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Manufacturers of building membranes | insulation products | flexible packaging



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Health and Safety Information

Ametalin has assessed SILVERWRAP™ 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/.

SILVERWRAP™ BREATHER should be installed in accordance with *AS/NZS 4200.2: 2017 Pliable Building Membranes and Underlays, Part 2: Installation Requirements*. Exposure of SILVERWRAP™ BREATHER to intense heat, sparks, flames and abrasive tools shall be avoided.

GENERAL

SILVERWRAP™ 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 a non-residential building 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 the foil side of the product is recommended.

TIMBER & STEEL FRAMED CONSTRUCTION:

- ▶ BRICK VENEER
- ▶ TYPICAL DOUBLE BRICK

SILVERWRAP™ BREATHER should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out. SILVERWRAP™ BREATHER should extend from the top plate to the bottom plate on concrete slabs or bearers in timber construction.

For fastening to timber construction, fixings are to be no more than 150 mm apart and should be galvanised clouts or staples, prior to fixing cladding. For fastening to steel constructions, tech screws at 300mm centres for cavity walls or Ametalin Double Sided Insulation Fixing Tape for direct to stud fastening prior to fixing cladding. 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 to the outside of bottom layers to prevent water ingress. All end laps are to be fixed to a stud to form a continuous membrane. Any damage made to SILVERWRAP™ BREATHER during installation including holes and tears must be repaired to restore the integrity of the membrane.

Where SILVERWRAP™ BREATHER is intended to act as an air or vapour control, tape and seal all overlapped joints, penetrations and discontinuities with Ametalin Insulation/Ducting tape to prevent air movement. When SILVERWRAP™ BREATHER is installed as a water control membrane ensure all penetrations shall be sealed or turned up to facilitate drainage around penetration. Ensure window and door openings are cut neatly, dressed carefully and are properly fitted at flashing points. Where SILVERWRAP™ BREATHER is installed as a thermal control membrane, ensure airgap to low emittance foil side is ≥ 20 mm. SILVERWRAP™ BREATHER shall be cut back from any hot flue to avoid being a fire hazard. This can be achieved by a clear space of 50 mm and sealing edge with fire rated Ametalin Reinforced Insulation and Ducting tape or a fire rated collar, or as recommended by the manufacturer of the flue and approved by the local authority.

It is recommended to use the following when required to secure, join, seal and install SILVERWRAP™ BREATHER.

AMETALIN TAPE RANGE	Size	Product Code	Item Number
Ametalin Insulation Ducting Tape	48 mm x 50 m	IDT-5050	0810227
Ametalin Reinforced Insulation Ducting Tape:	75 mm x 50 m	IDTR-7250	0029077
Ametalin Double Sided Fixing Tape	38 mm x 50 m	DSFT-3850	0811320

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