



## HIGH WATER BARRIER - MEDIUM VAPOUR BARRIER

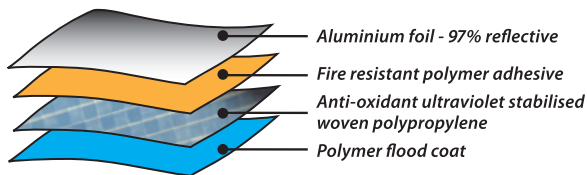
**Product Code: MD | I/N: 0810104**

SILVERWRAP™ is a Medium Duty wall wrap designed for use in all wall system types, and is also suitable for use under metal roofs. The reflective foil side provides extra R-value when installed facing an air cavity, and the multi-layer structure provides superior strength, flexibility and durability. Classified as High Water Barrier, Medium Vapour Barrier, SILVERWRAP™ acts as a barrier to radiant heat, moisture ingress, draughts and dust penetration.

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

### Construction

SILVERWRAP™ 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, backed by a polymer flood coat. In order to minimise shrinkage after installation, our products are pre-shrunk during the manufacturing process.



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

### Application

SILVERWRAP™ is designed for use as a wall wrap in residential and office buildings in all regions of Australia, and is also suitable for use under metal roofs. Durability may be affected by environmental factors, including airborne pollutants, if used in industrial or farm buildings.

NOTE: High Water Barrier, Medium Vapour Barrier wall wraps are suitable for wet tropical climate zones.

### Tear Resistance

SILVERWRAP™ is an extremely lightweight product with superior tear resistance. SILVERWRAP™ is guaranteed to meet or exceed the minimum performance levels for Medium Duty rating required under AS/NZS 4200.1:1994.

	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	65 N	452 N / 25 mm
Lateral direction edge tear resistance	65 N	341 N / 25 mm

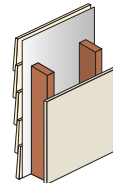
\* Minimum value required to qualify as Medium Duty under AS/NZS 4200.1:1994

### 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.

#### LIGHT WEIGHT CLADDING

with one layer of SILVERWRAP™ + one layer of PLEATED SILVERBATTS™

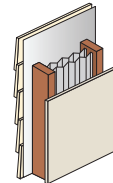


CALCULATION REF: 299w3226

**WINTER R<sub>T</sub> 1.0 SUMMER R<sub>T</sub> 0.9**

#### LIGHT WEIGHT CLADDING

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

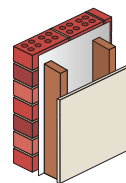


CALCULATION REF: 299w39b

**WINTER R<sub>T</sub> 3.1 SUMMER R<sub>T</sub> 2.7**

#### BRICK VENEER

with one layer of SILVERWRAP™



CALCULATION REF: 299w3221

**WINTER R<sub>T</sub> 1.3 SUMMER R<sub>T</sub> 1.2**

### SILVERWRAP™



MD



## Classification

SILVERWRAP™ classifications in accordance with AS/NZS 4200.1:1994

PRODUCT		SILVERWRAP™	AS/NZS 4200.1:1994
FLAMMABILITY INDEX	AS 1530.2-1993	Low	Low ≤ 5
DUTY	AS/NZS 4200.1:1994	Medium	Classification
EMITTANCE	AS/NZS 4201.5:1994	0.03	Value
REFLECTIVITY	AS/NZS 4200.1:1994	97%	Value
RESISTANCE TO WATER PENETRATION	AS/NZS 4201.4:1994	High	High
VAPOUR BARRIER	ASTM E96	Medium, PROCEDURE B, WET CUP TEST	Classification
MACHINE DIRECTION TENSILE STRENGTH	AS 1301.448s-91	11.9 kN/m	Min 9.5 kN/m
LATERAL DIRECTION TENSILE STRENGTH	AS 1301.448s-91	9.7 kN/m	Min 6.0 kN/m
MACHINE DIRECTION EDGE TEAR	TAPPI T 470 om-89	452 N	Min 65 N
LATERAL DIRECTION EDGE TEAR	TAPPI T 470 om-89	341 N	Min 65 N
RESISTANCE TO DRY DELAMINATION	AS/NZS 4201.1:1994	Pass	Pass
RESISTANCE TO WET DELAMINATION	AS/NZS 4201.2:1994	Pass	Pass
SHRINKAGE	AS/NZS 4201.3:1994	0.0%	< 0.5%

WATER VAPOUR TRANSMISSION RATE: 1.44 g/m<sup>2</sup>·24hr (23°C, 50% RH)

AMETALIN CLASSIFICATION: MEDIUM VAPOUR BARRIER

## Vapour Barrier Properties

SILVERWRAP™ has a Water Vapour Transmission (WVT) rate of 1.44 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 85.61 MN·s/g. Ametalin classification is Medium Vapour Barrier.

Vapour barriers can be specified for use under linings in buildings. A detailed hygrothermal analysis is recommended for moisture control in building design.

## NCC/BCA Compliant

SILVERWRAP™ 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

SILVERWRAP™ 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™ is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03, 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

SILVERWRAP™ is sold in sizes:

1350 mm x 60 m (81 m<sup>2</sup>)

1350 mm x 30 m (40.5 m<sup>2</sup>)

## Specification Notes

When specifying, state the following:

**Product Name:** SILVERWRAP™ Medium Duty

The insulation to be installed shall be SILVERWRAP™ Medium Duty single-sided reflective laminate, emittance bright side 0.03. 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

Water Vapour Transmission (WVT): 1.44 g/m<sup>2</sup>·24hr

Vapour Resistance: 85.61 MN·s/g

Vapour Barrier Classification: Medium

Water Barrier Classification: High

Duty: Medium in accordance with AS/NZS 4200.1:1994

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Manufacturers of building membranes | insulation products | flexible packaging



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raising the standard

## Health and Safety Information

Ametalin has assessed SILVERWRAP™ 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/).**

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

### GENERAL

SILVERWRAP™ 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, a 25 mm air space adjacent to the foil side of the product is recommended.

### TIMBER & STEEL FRAMED CONSTRUCTION:

- ▶ BRICK VENEER
- ▶ REVERSE BRICK VENEER
- ▶ LIGHT WEIGHT CLADDING DIRECT TO STUD
- ▶ LIGHT WEIGHT CLADDING ON BATTENS

SILVERWRAP™ should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out. SILVERWRAP™ 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 use 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 SILVERWRAP™ during installation including holes and tears must be repaired.

Where SILVERWRAP™ WALL WRAP is intended to act as a vapour barrier, tape and seal all overlapped joints, penetrations and discontinuities with Ametalin Insulation/Ducting Tape to prevent air movement. When SILVERWRAP™ is installed as a sarking membrane, all penetrations shall be sealed or turned up to facilitate drainage around penetration. Ensure window and door openings are cut neatly and carefully and are properly fitted at flashing points. SILVERWRAP™ shall be cut back from any hot flue to avoid being a fire hazard. This can be achieved by a clear space of at least 50 mm, or as recommended by the manufacturer of the flue and approved by the local authority.

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