

# SILVERWRAP™

LIGHT DUTY

REFLECTIVE INSULATION WALL WRAP



HIGH WATER BARRIER - MEDIUM VAPOUR BARRIER

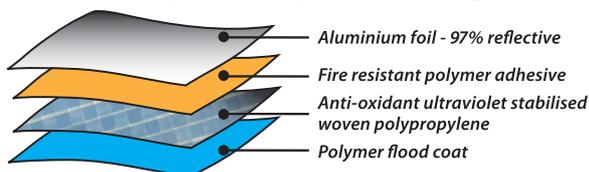
**Product Code: LD** | I/N: 0811067 CSO: 0038675, 00338677

SILVERWRAP™ is a Light 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. SILVERWRAP™ may also be used as a facing material to glasswool, rockwool and semi-rigid bulk insulation provided processing temperatures do not exceed 80°C to ensure no significant changes in the material supplied. 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 Light Duty rating required under AS/NZS 4200.1:2017.

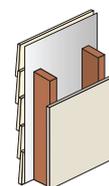
	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	45 N	373 N / 25 mm
Lateral direction edge tear resistance	45 N	338 N / 25 mm

\* 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.

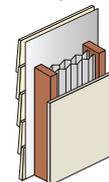
**LIGHT WEIGHT CLADDING**  
with one layer of SILVERWRAP™



CALCULATION REF: 299w3226

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

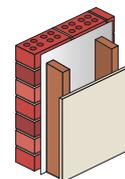
**LIGHT WEIGHT CLADDING**  
with one layer of SILVERWRAP™ + two layers of PLEATED SILVERBATTS™



CALCULATION REF: 299w39b

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

**LIGHT WEIGHT CLADDING**  
with one layer of SILVERWRAP™



CALCULATION REF: 299w3221

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

SILVERWRAP™



LD

## Classification

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

PRODUCT		SILVERWRAP™	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	AS/NZS 4200.1:2017	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	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:** 1.7 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 1.7 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 73.38 MN·s/g.

Ametalin classification is High Water Barrier, 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 Compliant

SILVERWRAP™ 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™ 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 AS/NZS 4200.1:2017

## 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 10 m (13.5 m<sup>2</sup>)      1500 mm x 30 m (45 m<sup>2</sup>)

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

## Specification Notes

When specifying, state the following:

**Product Name:** SILVERWRAP™ Light Duty

The insulation to be installed shall be SILVERWRAP™ Light 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): 1.7 g/m<sup>2</sup>·24hr

Vapour Resistance: 73.38 MN·s/g

Vapour Barrier Classification: Medium

Water Barrier Classification: High

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

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AMETALIN

9 -11 Playford Crescent Salisbury North SA 5108

T: +61 8 8285 6955 F: +61 8 8285 5911 E: info@ametalin.com W: ametalin.com

Manufacturers of building membranes | insulation products | flexible packaging



**ametalin**  
Insulation Systems & Building Membranes

## 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. Risk assessment and hazard control measures contained in federal, state and territory WHS legislation have to be followed. 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 selected and installed to fulfil the function specified in the design in accordance with *AS 4200.2:2017 Pliable Building Membranes and Underlays, Part 2: Installation Requirements*. Exposure of SILVERWRAP™ to intense heat, sparks, flames and abrasive tools shall be avoided.

### 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, an 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.

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™ during installation including holes and tears must be repaired to restore the integrity of the membrane.

Where SILVERWRAP™ 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™ 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™ is installed as a thermal control membrane, ensure airgap to low emittance foil side is  $\geq 20$ mm. SILVERWRAP™ shall be cut back from any hot flue to avoid being a fire hazard. This can be achieved 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.

### AMETALIN TAPE RANGE

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

	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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**Manufacturers of building membranes | insulation products | flexible packaging**