# SILVER WRAP

# MEDIUM DUTY

REFLECTIVE INSULATION WALL WRAP



# Product Code: MD | I/N: 0810104, 0810479

SILVER**WRAP**™ 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 a Water Barrier, and Class 2 Vapour Barrier, SILVER**WRAP**™ also acts as a barrier to radiant heat, moisture ingress, draughts and dust penetration.

- ✓ Strong and light weight with high tear resistance
- ✓ Achieves Group 1 classification for wall/ ceiling lining
- ✓ Water barrier, Class 2 Vapour Barrier
- ✓ Low flammability, suitable for all BAL in bushfire-prone areas

#### Construction

SILVER **WRAP**<sub>TM</sub> is a flexible four layer product made with a combination of anti-oxidant UV-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.

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

### **Application**

SILVER**WRAP**<sup>TM</sup> 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. SILVER**WRAP**<sup>TM</sup> 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.

NOTE: Water Barrier, Class 2 Vapour Barrier wall wraps are recommended for wet tropical climate zones

#### **Tear Resistance**

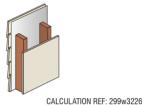
SILVER **WRAP**<sub>TM</sub> is an extremely lightweight product with superior tear resistance. SILVER **WRAP**<sub>TM</sub> is guaranteed to meet or exceed the minimum performance levels for Medium Duty rating required under *AS/NZS 4200.1:2017*.

	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 4200.1:2017					

CLASS 2 VAPOUR BARRIER 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.

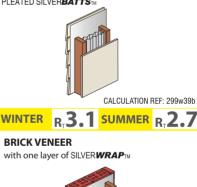
LIGHT WEIGHT CLADDING (direct to stud) with one layer of SILVER **WRAP**TM



# R. 1.0 SUMMER R. 0.9

LIGHT WEIGHT CLADDING (direct to stud) with one layer of SILVER**WRAP**TM + two layers of PLEATED SILVER**BATTS**TM

WINTER





CALCULATION REF: 299w3221





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### **Material Properties and Classifications**

SILVER WRAP™ classifications in accordance with AS/NZS 4200.1:2017 and AS/NZS 4859.1:2002, Amdt 1 2006

CRITERIA		REFERENCE	RESULT		REQUIREMENT	
Flammability Ind	ex	AS 1530.2-1993	$Low \le 5$		High (> 5) / Low (≤ 5)	
Duty		AS/NZS 4200.1:2017	Medium		Classification	
Tensile Strength	Machine Direction	AS 1301.448s-91	11.8 kN/m		Min 9.5 kN/m	
	Lateral Direction	AS 1301.448S-91	9.3 kN/m		Min 6.0 kN/m	
	Machine Direction		500 N		Min 65 N	
Edge Tear	Lateral Direction	TAPPI T 470 om-89	382 N		Min 65 N	
Vapour Control		ASTM E96	Class 2 Vapour Barrier		Class 1 to 4	
Vapour Permeance		ASTM E96	0.0117 μg/N.s		μg/N.s	
Water Control		AS/NZS 4201.4:1994	Water Barrier		Water Barrier or Non-water Barrier	
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%	
Electrical Conductivity		AS/NZS 4200.1:2017	Electrically Conductive		Electrically Conductive or Electrically Non-conductive	
Emittance Value		AS/NZS 4201.5:1994	Bright side: 0.03	Anti-glare side: 0.9	Value	
Emittance Classification		AS/NZS 4200.1:2017	IR Reflective	IR Non-reflective	$\label{eq:response} \begin{array}{l} \mbox{R - IR Reflective} \le 0.05 \\ \mbox{S - IR Semi-reflective} > 0.05 \mbox{to} \le 0.15 \\ \mbox{N - IR Non-reflective} > 0.15 \end{array}$	
Emittance Category		AS/NZS 4200.1:2017	RN		RR RS RN SS SN NN	

# **NCC Compliant**

SILVER**WRAP**<sup>TM</sup> complies with *AS/NZS* 4859.1:2002/Amdt 1:2006 and *AS/NZS* 4200.1:2017, and therefore meets all of the requirements of the National Construction Code of Australia for insulation and sarking-type materials.

### **Fire Performance**

#### **GROUP NUMBER ASSESSMENT**

Group 1

Tested in accordance with AS ISO 9705-2003 – Fire tests - Full-scale room test for surface products.

#### **FLAMMABILITY INDEX**

Low (≤5)

Tested toin accordance with AS 1530.2-1993 - Methods for fire tests on building materials, components and structures Part 2: Test for flammability of materials.

# **BUSHFIRE ATTACK LEVELS**

SILVER **WRAP**<sub>TM</sub> complies with AS 3959-2009 Construction of buildings in bushfire-prone areas for use in wall systems BAL – LOW to BAL – FZ.

# Handling & Storage

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

### Dimensions

SILVER **WRAP** 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>) Bulk rolls available upon request.

#### **Specification Notes**

When specifying, state the following: **Product Name:** SILVER**WRAP**™ Medium Duty

The insulation to be installed shall be SILVER**WRAP**<sup>m</sup> Medium Duty single-sided reflective laminate, emittance bright side 0.03. Product is manufactured by Ametalin and shall be installed in accordance with AS 4200.2: 1994 Pliable Building Membranes and Underlays, Part 2: Installation.

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 Control Classification: Class 2 Vapour Barrier Water Control Classification: Water Barrier Duty: Medium in accordance with *AS/NZS* 4200.1:2017

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### Health and Safety Information

Ametalin has assessed SILVER**WRAP**<sup>TM</sup> 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 <u>www.afia.com.au/news/health-and-safety/</u>.

SILVER WRAP m should be installed in accordance with AS 4200.2: 1994 Pliable Building Membranes and Underlays, Part 2: Installation.

#### GENERAL

SILVER **WRAP**<sup>TM</sup> 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**

In framed walls and gables, SILVER**WRAP**<sup>TM</sup> should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out and overlapped by no less than 150 mm to facilitate drainage. SILVER**WRAP**<sup>TM</sup> 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 tek 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 SILVER**WRAP**<sup>TM</sup> during installation including holes and tears must be repaired.

Where SILVER**WRAP**<sup>TM</sup> is intended to act as a vapour barrier, tape and seal all overlapped joins, penetrations and discontinuities with Ametalin Insulation/Ducting Tape to prevent air movement. When SILVER**WRAP**<sup>TM</sup> 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. SILVER**WRAP**<sup>TM</sup> 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.

#### **AMETALIN TAPE RANGE**

It is recommended to use the following when required to secure, join, seal and install SILVER WRAP M.

	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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