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 a Water Barrier and Class 2 Vapour Barrier, SILVERWRAP™ 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**

SILVERWRAP™ 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.

Ametalin utilises Advanced Laminating Technology; the polymer adhesive remains tacky indefinitely 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.

**NOTE:** Water Barrier, Class 2 Vapour Barrier wall wraps are recommended 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.

<table>
<thead>
<tr>
<th>Minimum Value*</th>
<th>Actual Test Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine direction edge tear resistance</td>
<td>45 N</td>
</tr>
<tr>
<td>Lateral direction edge tear resistance</td>
<td>45 N</td>
</tr>
</tbody>
</table>

* Minimum value required to qualify as Light Duty under AS/NZS 4200.1:2017
NCC Compliant
SILVERWRAP™ complies with AS/NZS 4859.1:2002 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 in 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

Handling & 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 m²)
- 1500 mm x 30 m (45 m²)
- 1350 mm x 60 m (81 m²)

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 4200.2: 1994 Pliable Building Membranes and Underlays, Part 2: Installation.

- Emittance Bright Side: 0.03
- Water Vapour Transmission (WVT): 1.7 g/m².24hr
- Vapour Resistance: 73.38 MN•s/g
- Vapour Control Classification: Class 2 Vapour Barrier
- Water Control Classification: Water Barrier
- Duty: Light in accordance with AS/NZS 4200.1:2017

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**Material Properties and Classifications**


<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>REFERENCE</th>
<th>RESULT</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability Index</td>
<td>AS 1530.2-1993</td>
<td>Low ≤ 5</td>
<td>High (&gt; 5) / Low (≤ 5)</td>
</tr>
<tr>
<td>Duty</td>
<td>AS/NZS 4200.1:2017</td>
<td>Light</td>
<td>Classification</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>AS 1301.448s-91</td>
<td>8.9 kN/m</td>
<td>Min 7.5 kN/m</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.3 kN/m</td>
<td>Min 4.5 kN/m</td>
</tr>
<tr>
<td>Edge Tear</td>
<td>TAPPI T 470 om-89</td>
<td>373 N</td>
<td>Min 45 N</td>
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<td></td>
<td></td>
<td>338 N</td>
<td>Min 45 N</td>
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<tr>
<td>Vapour Control</td>
<td>ASTM E96</td>
<td>Class 2 Vapour Barrier</td>
<td>Class 1 to 4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.0136 µg/N.s</td>
<td>±</td>
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<tr>
<td>Vapour Permeance</td>
<td>ASTM E96</td>
<td></td>
<td>µg/N.s</td>
</tr>
<tr>
<td>Water Control</td>
<td>AS/NZS 4201.4:1994</td>
<td>Water Barrier</td>
<td>Water Barrier or Non-water Barrier</td>
</tr>
<tr>
<td>Resistance to Dry Delamination</td>
<td>AS/NZS 4201.1:1994</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Resistance to Wet Delamination</td>
<td>AS/NZS 4201.2:1994</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Shrinkage (Repeated wetting &amp; drying)</td>
<td>AS/NZS 4201.3:1994</td>
<td>0.0%</td>
<td>&lt; 0.5%</td>
</tr>
<tr>
<td>Electrical Conductivity</td>
<td>AS/NZS 4200.1:2017</td>
<td>Electrically Conductive</td>
<td>Electrically Conductive or Electrically Non-conductive</td>
</tr>
<tr>
<td>Emittance Value</td>
<td>AS/NZS 4201.5:1994</td>
<td>Bright side: 0.03</td>
<td>R - IR Reflective ≤ 0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anti-glare side: 0.9</td>
<td>S - IR Semi-reflective &gt; 0.05 to ≤ 0.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N - IR Non-reflective &gt; 0.15</td>
</tr>
<tr>
<td>Emittance Classification</td>
<td>AS/NZS 4200.1:2017</td>
<td>IR Reflective</td>
<td>R - IR Reflective ≤ 0.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IR Non-reflective</td>
<td>S - IR Semi-reflective &gt; 0.05 to ≤ 0.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N - IR Non-reflective &gt; 0.15</td>
</tr>
<tr>
<td>Emittance Category</td>
<td>AS/NZS 4200.1:2017</td>
<td>RN</td>
<td>RR RS RN SS SN NN</td>
</tr>
</tbody>
</table>

CRITERIA: REFERENCE

- **Flammability Index:** AS 1530.2-1993
- **Duty:** AS/NZS 4200.1:2017
- **Tensile Strength:** Machine Direction AS 1301.448s-91
- **Edge Tear:** Machine Direction TAPPI T 470 om-89
- **Vapour Control:** ASTM E96
- **Water Control:** AS/NZS 4201.4:1994
- **Resistance to Dry Delamination:** AS/NZS 4201.1:1994
- **Resistance to Wet Delamination:** AS/NZS 4201.2:1994
- **Shrinkage:** AS/NZS 4201.3:1994
- **Electrical Conductivity:** AS/NZS 4200.1:2017
- **Emittance Value:** AS/NZS 4201.5:1994
- **Emittance Classification:** AS/NZS 4200.1:2017
- **Emittance Category:** AS/NZS 4200.1:2017

CRITERIA: RESULT

- **Low (≤5)**
- **Min 45 N**
- **Class 2 Vapour Barrier**
- **0.0136 µg/N.s**
- **Pass**
- **0.0%**
- **Electrically Conductive**
- **Bright side: 0.03**
- **IR Reflective**
- **IR Non-reflective**
- **RN**

CRITERIA: REQUIREMENT

- **High (> 5) / Low (≤ 5)**
- **Min 7.5 kN/m**
- **Class 1 to 4**
- **Pass**
- **< 0.5%**
- **Electrically Conductive or Electrically Non-conductive**
- **R - IR Reflective ≤ 0.05**
- **S - IR Semi-reflective > 0.05 to ≤ 0.15**
- **N - IR Non-reflective > 0.15**
- **RR RS RN SS SN NN**

CRITERIA: FLAMMABILITY INDEX

- **Low (≤5)**
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/.

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. 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 joins, 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 ≥20mm. 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™.

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Product Code</th>
<th>Item Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ametalin Insulation Ducting Tape</td>
<td>48 mm x 50 m</td>
<td>IDT-5050</td>
<td>0810227</td>
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<tr>
<td>Ametalin Reinforced Insulation Ducting Tape</td>
<td>75 mm x 50 m</td>
<td>IDTR-7250</td>
<td>0029077</td>
</tr>
<tr>
<td>Ametalin Double Sided Fixing Tape</td>
<td>38 mm x 50 m</td>
<td>DSFT-3850</td>
<td>0811320</td>
</tr>
</tbody>
</table>