

SILVER**SARK**®

EXTRA HEAVY DUTY

REFLECTIVE INSULATION | MULTI-PURPOSE: ROOF SARKING | WALL WRAP



HIGH WATER BARRIER - MEDIUM VAPOUR BARRIER

Product Code: XHD | I/N: 0810107

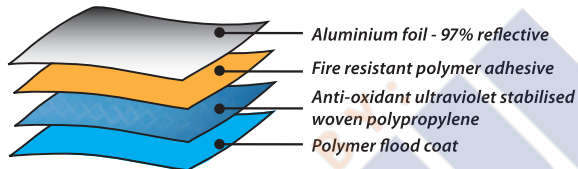
SILVER**SARK**® MULTI-PURPOSE is an Extra Heavy Duty radiant barrier, designed for multi-purpose use as both roof sarking and a wall wrap. It is suitable for use in all roof and wall types. The reflective foil side provides extra R-value when installed facing an air cavity, and the multi-layer structure provides superior strength, flexibility and durability. Classified as High Water Barrier, Medium Vapour Barrier, SILVER**SARK**® MULTI-PURPOSE acts as a barrier to radiant heat, moisture ingress, draughts and dust penetration.

- ✓ High Water Barrier
- ✓ 97% Reflective
- ✓ Superior heat resistance
- ✓ Medium Vapour Barrier
- ✓ High strength, light weight
- ✓ Low flammability

Construction

SILVER**SARK**® MULTI-PURPOSE 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

SILVER**SARK**® MULTI-PURPOSE is designed for use as a roof sarking and wall wrap in residential, commercial and office buildings in all regions of Australia. 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

SILVER**SARK**® MULTI-PURPOSE is an extremely lightweight product with superior tear resistance. SILVER**SARK**® MULTI-PURPOSE is guaranteed to meet or exceed the minimum performance levels for Extra Heavy Duty rating required under AS/NZS 4200.1:1994.

	Minimum Value*	Actual Test Value
Machine direction edge tear resistance	90 N	517 N / 25 mm
Lateral direction edge tear resistance	90 N	480 N / 25 mm

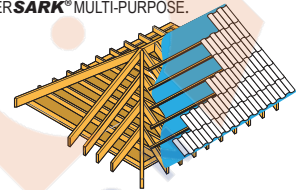
* Minimum value required to qualify as Extra Heavy Duty under AS/NZS 4200.1:1994

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.

TILE ROOF / METAL ROOF

22° pitched tile roof or metal roof, unventilated attic, plasterboard ceiling, with one layer of SILVER**SARK**® MULTI-PURPOSE.

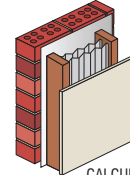


CALCULATION REF: Tile Roof 299r3234 / Metal Roof 299r37

WINTER **R_T 1.0** SUMMER **R_T 1.5**

BRICK VENEER WALL

with one layer of SILVER**SARK**® MULTI-PURPOSE + two layers of PLEATED SILVER**BATTS**™

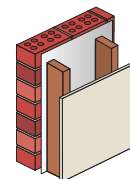


CALCULATION REF: 299w3225

WINTER **R_T 3.4** SUMMER **R_T 3.0**

BRICK VENEER WALL

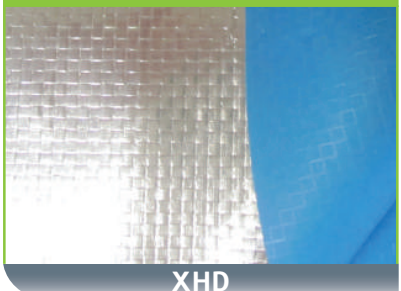
with one layer of SILVER**SARK**® MULTI-PURPOSE



CALCULATION REF: 299w3221

WINTER **R_T 1.3** SUMMER **R_T 1.2**

SILVER**SARK**®



Classification

SILVER SARK® MULTI-PURPOSE classifications in accordance with AS/NZS 4200.1:1994

PRODUCT		SILVER SARK®	AS/NZS 4200.1:1994
FLAMMABILITY INDEX	AS 1530.2-1993	Low	Low ≤ 5
DUTY	AS/NZS 4200.1:1994	Extra Heavy	Classification
EMITTANCE	AS/NZS 4201.5:1994	0.03	Value
REFLECTIVITY		97% (ACTUAL)	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	15.9 kN/m	Min 13.0 kN/m
LATERAL DIRECTION TENSILE STRENGTH	AS 1301.448s-91	14.2 kN/m	Min 10.5 kN/m
MACHINE DIRECTION EDGE TEAR	TAPPI T 470 om-89	517 N	Min 90 N
LATERAL DIRECTION EDGE TEAR	TAPPI T 470 om-89	480 N	Min 90 N
RESISTANCE TO DRY DELAMINATION	AS/NZS 4201.1:1994	Pass	Pass
RESISTANCE TO WET DELAMINATION	AS/NZS 4201.2:1994	Pass	Pass
RESISTANCE TO IMPACT (SANDBAG)	AS 4040.4-2006	No Penetration	
SHRINKAGE	AS/NZS 4201.3:1994	< 0.0%	< 0.5%

WATER VAPOUR TRANSMISSION RATE: 2.6 g/m²·24hr (23°C, 50% RH)

AMETALIN CLASSIFICATION: MEDIUM VAPOUR BARRIER

Vapour Barrier Properties

SILVER SARK® MULTI-PURPOSE has a Water Vapour Transmission (WVT) rate of 2.6 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH). Vapour Resistance 46.70 MN·s/g. Ametalin classification is Medium Vapour Barrier.

NCC/BCA Compliant

SILVER SARK® MULTI-PURPOSE 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

SILVER SARK® MULTI-PURPOSE complies with AS 3959-2009 *Construction of buildings in bushfire-prone areas* for use in roof systems BAL – LOW to BAL – 40 and 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

SILVER SARK® MULTI-PURPOSE is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03 to one side, 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

SILVER SARK® MULTI-PURPOSE is sold in sizes:

1200 mm x 60 m (72 m ²)	
1350 mm x 60 m (81 m ²)	1350 mm x 30 m (40.5 m ²)
1500 mm x 60 m (90 m ²)	1500 mm x 30 m (45 m ²)

Specification Notes

When specifying, state the following:

Product Name: SILVER SARK®

The insulation to be installed shall be SILVER SARK® 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): 2.6 g/m²·24hr

Vapour Resistance: 46.70 MN·s/g

Vapour Barrier Classification: Medium

Water Barrier Classification: High

Duty: Extra Heavy in accordance with AS/NZS 4200.1:1994

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AUSTRALIAN MADE, AUSTRALIAN OWNED.

AMETALIN

41-43 Birrallee Road Regency Park SA 5010

T: +61 8 8347 0941 F: +61 8 8347 0915 E: info@ametalin.com W: ametalin.com

Manufacturers of building membranes | insulation products | flexible packaging



ametalin

raising the standard

Health and Safety Information

Ametalin has assessed SILVER**SARK**® 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/.

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

GENERAL

SILVER**SARK**® 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.

ROOFS

In roofs, SILVER**SARK**® is to be installed as a continuous membrane, blue side facing out and laid loosely over rafters on 450 mm centres with a minimum drape of 40 mm. For larger rafter spacings in metal roofs, the drape should be increased proportionally. Joins must be overlapped by no less than 150 mm with all top layers overlapping the outside of lower layers to facilitate drainage. *AS 3959-2009 Construction of buildings in bushfire-prone areas* requires that all sarking products be installed under roof battens.

When SILVER**SARK**® is used under tiles it must be installed under battens in order to comply with *AS/NZS 4200.2:1994*. Under metal roofing the preferred installation is also under the battens. SILVER**SARK**® can be installed above the battens, but performance may be reduced and problems may arise under certain environmental conditions. Specifically, condensation forming under the roof may pool behind battens due to a breach in the integrity of the SILVER**SARK**® membrane; condensation may also form on the underside of SILVER**SARK**® where contact is made with the roofing material. Adequate slack in the material must be provided, equal to the specified sag, to accommodate shrinkage of SILVER**SARK**® due to high temperatures in close proximity to the metal roofing.

FRAMED WALLS & GABLES

In framed walls and gables, SILVER**SARK**® should be installed horizontally as a continuous membrane by fixing to all framing members with the blue side facing out. SILVER**SARK**® 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 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 SILVER**SARK**® during installation including holes and tears must be repaired.

Where SILVER**SARK**® 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**SARK**® 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**SARK**® 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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