

SilverSark® xR HD

Product Code: HD-XR

Extra R-value

Reflective roof and wall insulation

For walls and tile or metal roofs in residential and commercial buildings



SilverSark® xR is a Heavy Duty double-sided radiant barrier, designed for use under metal deck roofs where temperatures can exceed 80°C, and with battened out cladding to create an extra reflective air space for enhanced R-value. It is an Air and Water Barrier, Class 2 Vapour Barrier product, suitable for use in all roof and wall applications.

Roof spaces fitted with SilverSark® xR will benefit from controlled ventilation, which assists with excess heat in summer and moisture ingress in winter.

- > The best all-round weather barrier for your home
- > Superior strength, Puncture resistant
- > Water and Air Barrier, Class 2 Vapour Barrier
- > Innovative low-glare, high IR reflection ink technology
- > Low Flammability, suitable for all BALs in bushfire-prone areas

Application

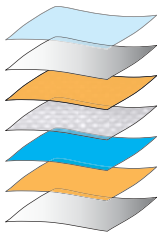
Install SilverSark® xR facing an air space on either side for increased reflective R-value. SilverSark® xR reduces the need for additional wall insulation, and increases overall thermal performance of the building system.

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

Construction

SilverSark® xR is a flexible multi-layer product made with a combination of woven polymer substrate, aluminium foil, and fire-resistant polymer adhesive. It has reflective foil surfaces on both sides, one side with an innovative low-glare, high IR reflection ink technology for ease of installation. The internal membrane structure is highly flexible and resilient. This has two benefits:

- 1) Wind flap is minimised under tile roofs in high wind conditions.
- 2) Stress within the structure due to flapping, thermal expansion and shrinkage is significantly reduced, markedly improving the durability of the product.



- > Anti-glare coating
- > Aluminium foil
- > Polymer adhesive
- > Polymer film
- > Woven Polymer
- > Polymer adhesive
- > Aluminium foil

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

In order to minimise shrinkage after installation, SilverSark® xR is pre-shrunk during the manufacturing process.

Declared Total System R-Values

Residential Roof

22° pitch with SilverSark® xR, unventilated.

Winter **R_t 1.14**

Summer **R_t 1.97**

Light Weight Cladding

battened out with SilverSark® xR + R2.7 fibrous batts

Winter **R_t 3.00**

Summer **R_t 2.89**

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 4859.1:2018. For detailed design of building systems readers are advised to seek advice from a qualified engineer, based on actual site conditions.

The contributions of this product to the total system R-value depends on installation and environmental conditions.

Material Properties and Classifications

SilverSark® xR Heavy Duty classifications in accordance with AS/NZS 4200.1:2017 and AS/NZS 4859.1:2018

Criteria	Reference	Result	Requirement
Flammability Index	AS 1530.2-1993	Low ≤ 5	High (> 5) / Low (≤ 5)
Material Thickness		0.12 mm	Value
Duty	AS/NZS 4200.1:2017	Heavy	Classification
Tensile Strength Machine Direction	AS 1301.448s-91	12.8 kN/m	Min 12.5 kN/m
Tensile Strength Lateral Direction	AS 1301.448s-91	8.4 kN/m	Min 7.5 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	507 N	Min 80 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	369 N	Min 80 N
Vapour Control	ASTM E96	Class 2 Vapour Barrier	Class 1 to 4
Vapour Permeance	ASTM E96	0.02141 $\mu\text{g}/\text{N}\cdot\text{s}$	Value
Water Control	AS/NZS 4201.4:1994	Water Barrier	Classification
Air Control	AS/NZS 4200.1:2017	Air Barrier	Classification
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	Classification
Emittance Value	AS/NZS 4201.5:1994	Anti-glare side: 0.05, Foil side: 0.03	Value
Emittance Classification	AS/NZS 4200.1:2017	IR Reflective, IR Reflective	Classification
Emittance Category	AS/NZS 4200.1:2017	RR	Category

NCC Compliant

SilverSark® xR complies with AS/NZS 4859.1:2018 and AS/NZS 4200.1:2017, and therefore meets all of the requirements of the *National Construction Code* of Australia for pliable building membranes, insulation and sarking-type materials.

Fire Performance

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

Complies with AS 3959-2018 *Construction of buildings in bushfire-prone areas* for use in all BALs.

Seek independent advice regarding the selection of sarking prior to installation in the BAL design.

Dimensions

1350 mm x 60 m (81 m²)
 1350 mm x 30 m (40.5 m²)
 1500 mm x 30 m (45 m²)

Nominal thickness: 0.17 mm

Specification Notes

When specifying, state the following:

Product Name: Ametalin SilverSark® xR

The insulation to be installed shall be Ametalin SilverSark® xR, double-side reflective laminate with anti-glare and shall be installed in accordance with AS 4200.2:2017 *Pliable Building Membranes and Underlays, Part 2: Installation*.

Emittance Value: 0.05, 0.03

Emittance Classification: IR Reflective, IR Reflective

Vapour Control Classification: Vapour Barrier, 0.0078 $\mu\text{g}/\text{N}\cdot\text{s}$

Water Control Classification: Water Barrier

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

Complete details available on our website:

<https://www.ametalin.com/tools/how-to-specify/>

Handling and Storage

Store this product undercover in a clean, dry place in the pack provided out of contact with alkaline products, cement and mortar.

Performance insulation for a greener world

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Durability may be affected by environmental factors, including chemical and airborne pollutants, if used in industrial or farm buildings.

Australian designed for Australian conditions. Manufactured by: Ametalin 9-11 Playford Crescent, Salisbury North S 5108 T: +61 8 8285 6955 F: +61 8 8285 5911 E: info@ametalin.com

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