

SilverSark® HVB

Product Code: XHD-HVB

Reflective wall insulation

For Climate Zone 1 wall systems in residential and commercial buildings



SilverSark® HVB is as high vapour barrier wall wrap designed specifically for use in Climate Zone 1 and regions north of the Tropic of Capricorn in Climate Zone 2. 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 Class 1 Vapour Barrier, SilverSark® HVB functions as a barrier to vapour, radiant heat, moisture ingress, draughts and dust penetration.

- > Class 1 Vapour Barrier
- > Air and Water Barrier
- > Superior strength, puncture resistant
- > Low flammability, suitable for all BALs in bushfire-prone areas
- > Can also be used for tile and metal roofs

Application

SilverSark® HVB is designed for use where water barrier and Class 1 Vapour Barrier properties are required for use as a roof sarking and wall wrap in residential and commercial buildings in ABCB Climate Zone 1 and regions north of the Tropic of Capricorn in Climate Zone 2.

NOTE: Condensation risks should be addressed when the product is positioned on the cold side of constructions as the risks may increase.

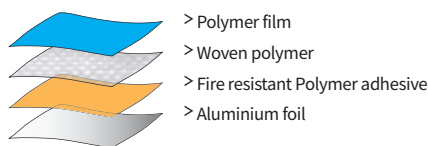
For ABCB Climate Zones 6, 7, 8 use a Class 3 or better permeable wrap on the outside of the insulation to allow ambient vapour to escape without condensing into liquid. Class 3 Vapour Permeable wrap for typical brick veneer and cavity constructions or Class 4

Vapour Permeable wrap, water barrier for light weight clad constructions.

Construction

SilverSark® HVB 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 for an indefinite period and provides superior resistance to heat, fire and delamination.

Declared Total System R-Values

Brick Veneer Wall
with SilverSark® HVB
+ R2.7 fibrous batt
Winter **R_t 2.93**
Summer **R_t 2.78**

Residential Roof
22° pitch with
SilverSark® HVB,
unventilated
Winter **R_t 0.93**
Summer **R_t 1.52**

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® HVB 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 | | 0.17 mm | Value |
| Duty | AS/NZS 4200.1:2017 | Extra Heavy | Classification |
| Tensile Strength Machine Direction | AS 1301.448s-91 | 15.2 kN/m | Min 13.0 kN/m |
| Tensile Strength Lateral Direction | AS 1301.448s-91 | 12.4 kN/m | Min 10.5 kN/m |
| Edge Tear Machine Direction | TAPPI T 470 om-89 | 646 N | Min 90 N |
| Edge Tear Lateral Direction | TAPPI T 470 om-89 | 555 N | Min 90 N |
| Vapour Control | ASTM E96 | Class 1 Vapour Barrier | Class 1 to 4 |
| Vapour Permeance | ASTM E96 | 0.002 $\mu\text{g}/\text{N}\cdot\text{s}$ | Value |
| Water Control | AS/NZS 4201.4:1994 | Water Barrier | Classification |
| Air Control | AS/NZS 4200.1:2017 | Air Barrier | Classification |
| Resistance to Wet Delamination | AS/NZS 4201.2:1994 | Pass | Pass |
| Shrinkage (Repeated wetting & drying) | AS/NZS 4201.3:1994 | 0.0% | $< 0.5\%$ |
| Electrically Conductive | AS/NZS 4200.1:2017 | Conductive | Classification |
| Emittance Value | AS/NZS 4201.5:1994 | Anti-glare side: 0.90, Foil side: 0.03 | Value |
| Emittance Classification | AS/NZS 4200.1:2017 | IR Non-reflective, IR Reflective | Classification |
| Emittance Category | AS/NZS 4200.1:2017 | RN | Category |

NCC Compliant

SilverSark® HVB 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.

Vapour Permeance

Vapour Permeance: 0.002 $\mu\text{g}/\text{N}\cdot\text{s}$

Vapour Resistance: 613.7 MN·s/g

WVTR: 0.190 $\text{g}/\text{m}^2\cdot 24\text{hr}$

Tested in accordance with AS/NZS 4200.1:2017

A detailed hygrothermal analysis is recommended for moisture control in building design.

Fire Performance

Flammability Index

Low (≤ 5)

Tested to 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)

Nominal thickness: 0.17 mm

Specification Notes

When specifying, state the following:

Product Name: Ametalin SilverSark® HVB

The insulation to be installed shall be Ametalin SilverSark® HVB, High Vapour Barrier single-sided reflective laminate and shall be installed in accordance with AS/NZS 4200.2: 2017 *Pliable Building Membranes and Underlays, Part 2: Installation Requirements.*

Emittance Value: 0.90, 0.03

Emittance Classification: IR Non-reflective, IR Reflective

Water Vapour Transmission: 0.190 $\text{g}/\text{m}^2\cdot 24\text{hr}$

Vapour Permeance: 0.002 $\mu\text{g}/\text{N}\cdot\text{s}$

Vapour Barrier Classification: Class 1

Water Barrier Classification: Water Barrier

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

Complete details available on our website:

<https://www.ametalin.com>

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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