

Underfloor insulation

For use under floors that are directly adhered to floor joists



SilverFloor® is a Heavy Duty, vapour permeable floor insulation, designed for use under floors with a sealed air space between flooring and enclosed sub-floor space. Double-sided reflective surfaces provide increased R-value to your floor system. 5 mm weep holes at 400 mm intervals in the membrane structure allow water and water vapour to permeate through, preventing moisture build-up under flooring.

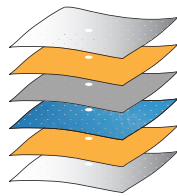
- > Heavy Duty
- > Double-sided foil radiant barrier
- > High strength, light weight
- > Low Flammability
- > Weep holes allow water to drain

Application

SilverFloor® is designed for use as an insulation under floors with a sealed air space between flooring and enclosed sub-floor space. Where the sub-floor space is exposed to wind, e.g. in pole construction, a lining should be installed under the floor joists.

Construction

SilverFloor® is a flexible six-layer product with anti-oxidant UV-stabilised woven polypropylene and polymer flood coat layers, backed on either side with fire-resistant polymer adhesive and 97% reflective aluminium foil.



- > 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.

Total System R-Values

Suspended Framed Floors

enclosed sub-floor unventilated with SilverFloor® installed between joists or over bearers

Winter **R_t 3.36**

Summer **R_t 1.52**

Suspended Framed Floors

unenclosed sub-floor, ventilated with SilverFloor® installed between joists or over bearers

Winter **R_t 2.05**

Summer **R_t 0.77**

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 4859.2:2018. 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.

To ensure optimum thermal insulation performance, ensure a ≥ 90 mm air gap adjacent to the upper foil side of the product.

Material Properties and Classifications

SilverFloor® 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)
Nominal Thickness		0.13 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	14.2 kN/m	Min 7.5 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	439 N	Min 80 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	452 N	Min 80 N
Vapour Control	ASTM E96	Class 3 Vapour Permeable	Class 1 to 4
Vapour Permeance	ASTM E96	0.3009 $\mu\text{g}/\text{N}\cdot\text{s}$	Value
Water Control	AS/NZS 4201.4:1994	Non-Water Barrier	Classification
Air Control	AS/NZS 4200.1:2017	Non-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	Conductive	Classification
Emittance Value	AS/NZS 4201.5:1994	Printed side: 0.03, 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

SilverFloor® 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 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.*

Dimensions

500 mm x 60 m (30 m²)

1500 mm x 60 m (90 m²)

Nominal Thickness: 0.13 mm

Specification Notes

When specifying state the following:
Product Name: Ametalin SilverFloor®

The insulation to be installed shall be Ametalin SilverFloor® Vapour Permeable reflective underfloor insulation and shall be installed in accordance with the instructions issued by them and in accordance with AS 4200.2:2017.

Emittance Value: 0.03, 0.03

Emittance Classification: IR Reflective, IR Reflective

Vapour Control Classification: Vapour Permeable, 0.3009 $\mu\text{g}/\text{N}\cdot\text{s}$

Water Control Classification: Non-water Barrier

Duty: 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. Ametalin 9-11 Playford Crescent, Salisbury North SA 5108 T: +61 8 8285 6955 F: +61 8 8285 5911 E: info@ametalin.com

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