Ametalin

Performance insulation for a greener world

FireSark®

Product Code: FS

Fire resistant reflective insulation

For use in all roof and wall types in Non-Combustible constructions and ideal for use in all BAL zones

FireSark® is an Extra Heavy Duty radiant barrier, designed for multi-purpose use in all roof and wall types where fire performance is a priority. The reflective foil side provides extra R-Value when installed facing an air cavity, and the non-combustible glass fabric multi-layer structure provides excellent fire and ember resistance, as well as superior strength, flexibility and durability.

Classified as a Water Barrier, and Class 2 Vapour Barrier. FireSark® is a barrier to embers, radiant heat, moisture ingress, draughts and dust penetration.

- Ember-proof
- Ideal for all BAL zones to FZ bushfire-prone areas
- Water and Air Barrier
- Class 2 Vapour Barrier
- 97% Reflective

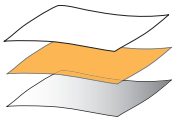
Application

FireSark® is designed for use as a roof sarking and wall wrap in residential and commercial buildings in all regions of Australia. Suitable for external wall construction in all building classes, and particularly where superior fire performance is desired. The 97% reflective foil face provides extra R-value when installed facing an air cavity.

NOTE: Water Barrier, Class 3 to 4 Vapour Permeable is required for walls in Climate Zones 6 - 8.

Construction

FireSark® is a flexible three-layer product made with a combination of non-combustible E-glass fabric, 97% reflective aluminium foil, and durable fire-resistant polymer adhesive.



> Glass fabric
> Fire resistant polymer adhesive
> Aluminium foil

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

NCC Compliant

FireSark® complies with NCC 2019 Deemed-to-Satisfy Provisions for non-combustible constructions *Volume 1 C1.9 , Volume 2 Part 3.7.1.1, AS/NZS 4859.1:2018* and *AS/NZS 4200.1:2017*, and therefore meets all of the general requirements of the *2019 National Construction Code* of Australia for insulation, pliable building membranes and sarking-type materials.

Dimensions

1350 mm x 30 m (40.5 m^2)

Nominal thickness: 0.20 mm

Declared Total System R-Values

Residential Roof

22° pitch with FireSark®, unventilated

Winter **R_T 0.93**

Summer **R_T 1.52**

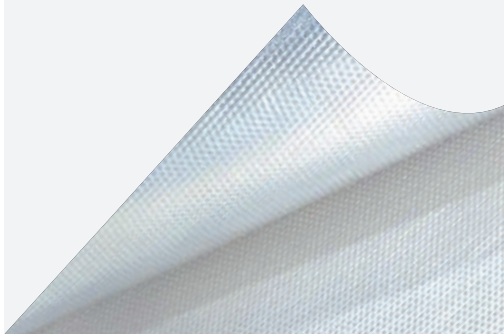
Light Weight Cladding

battened out with FireSark®

Winter **R_T 1.15**

Summer **R_T 1.05**

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

FireSark® classifications in accordance with *AS/NZS 4200.1:2017, AS/NZS 4859.1:2018* and *NCC Volume One, C1.9 and NCC Volume Two, Part 3.7.4.1.*

Criteria	Reference	Result	Requirement
Combustibility	*AS 1530.1-1994*	Not deemed combustible	Fibreglass weave
Flammability Index	*AS 1530.2-1993*	Low ≤ 5	High (> 5) / Low (≤ 5)
Early Fire Indices	*AS/NZS 1530.3-1999*	0, 0, 0, 2	0 – 20, 0, 0 – 10, ≤ 3
Thickness		0.20 mm	≤ 1mm
Duty	*AS/NZS 4200.1:2017*	Extra Heavy	Classification
Tensile Strength Machine Direction	*AS 1301.448s-91*	58 kN/m	Min 13.0 kN/m
Tensile Strength Lateral Direction	*AS 1301.448s-91*	26 kN/m	Min 10.5 kN/m
Edge Tear Machine Direction	*TAPPI T 470 om-89*	381 N	Min 90 N
Edge Tear Lateral Direction	*TAPPI T 470 om-89*	440 N	Min 90 N
Vapour Control	*ASTM E96*	Class 2 Vapour Barrier	Class 1 to 4
Vapour Permeance	*ASTM E96*	0.003 µg/N.s	Value
Water Control	*AS/NZS 4201.4:1994*	Water Barrier	Classification
Air Control	*ISO 6536/5-2003*	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%
Electrically Conductive	*AS/NZS 4200.1:2017*	Conductive	Classification
Emittance Value	*AS/NZS 4201.5:1994*	Printed 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

Fire Performance

FireSark® is suitable for use in Non-Combustible construction in compliance with *NCC 2019 Volume One C1.9(e)(vi)* and *Volume Two Part 3.7.1.1(f).* Superior fire performance results from the choice of

Non-Combustible fibreglass weave for the bulk of the material and naturally non-combustible aluminium.

FireSark® Offers a Triple Crown of Safety:

AS 1530.1—1994 Methods for fire tests on building materials, components and structures Part 1: Combustibility tests for materials.

The fibreglass fabric and aluminium foil have achieved a result of not deemed combustible.

AS 1530.2—1993 Methods for fire tests on building materials, components and structures Part 2: Test for flammability of materials.

FireSark® achieves a flammability index of 1 or Low (≤5)

AS/NZS 1530.3:1999 Methods for fire tests on building materials, components and structures Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release

The early fire hazard indices are:

- Ignitability: 0
- Spread of flame: 0
- Heat evolved: 0
- Smoke developed: 2

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.

Specification Notes

When specifying, state the following:
Product Name: Ametalin FireSark®

The insulation to be installed shall be Ametalin FireSark® single-sided reflective laminate, tested in accordance with *AS 1530.1-1994 Methods for fire tests on building materials, components and structures Part 1: Combustibility test for materials* to satisfy *NCC 2019, Vol 1, C1.9* for non-combustible constructions and shall be installed in accordance with *AS 4200.2: 2017 Pliable Building Membranes and Underlays, Part 2: Installation.*

Combustibility: Not deemed combustible
Flammability Classification: Low (1)
Early Fire Hazard Indices: 0, 0, 0, 2
Emittance Value: 0.90, 0.03
Emittance Classification: IR Non-reflective, IR Reflective
Vapour Control Classification: Class 2 Vapour Barrier, 0.003 µg/N·s
Water Control 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.

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