

FIRE SARK™ BREATHER

EXTRA HEAVY DUTY

REFLECTIVE INSULATION CLASS 3 VAPOUR PERMEABLE, BREATHER WALL WRAP



SUPERIOR FIRE PERFORMANCE

Product Code: FS-40-B

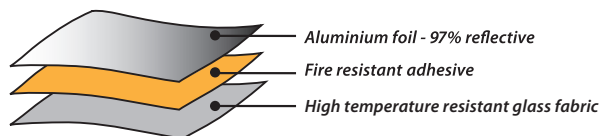
FIRE SARK™ BREATHER is an Extra Heavy Duty, Class 3 vapour permeable membrane designed to reduce the risk of interstitial condensation in building systems while offering superior fire performance to exceed the requirements of the National Construction Code.

A dense pattern of micro-perforations allows water vapour to escape from the wall structure while restricting the ingress of liquid water. FIRE SARK™ BREATHER is intended for use in double brick and brick veneer wall systems in climate zones 6, 7 and 8.

- ✓ EMBER PROOF
- ✓ Ideal for BAL zones 12.5-FZ
- ✓ Ultra strong material
- ✓ Chemically inert / long life components
- ✓ Superior heat resistance
- ✓ 97% Reflective

Construction

FIRE SARK™ BREATHER is a flexible three layer product made with a combination of high temperature resistant E-glass fabric, 97% reflective aluminium foil and fire-resistant polymer adhesive; the multi-layer structure provides superior strength, flexibility and durability. The fibreglass woven fabric resists continuous temperatures up to 550°C and intermittent temperatures up to 600°C. A dense pattern of micro-perforations enables FIRE SARK™ BREATHER to achieve Class 3 vapour permeable classification, while restricting the passage of water under low pressure.



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

NOTE: FIRE SARK™ BREATHER is not classified as a Water Barrier under AS 4200.1:2017 *Pliable building membranes and underlays, Part 1: Material.*

Application

FIRE SARK™ BREATHER is designed for use as a breather wall wrap and Class 3 vapour permeable membrane in residential, commercial and office buildings, in regions of Australia south of the Tropic of Capricorn (NCC Climate Zones 2-6). 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: Durability may be affected by environmental factors, including airborne pollutants, if used in industrial or farm buildings.

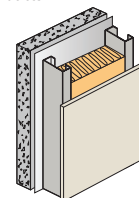
Total System R-values

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.

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.

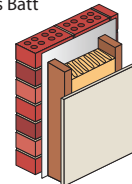
AERATED CONCRETE CLADDING
with one layer of FIRE SARK™ BREATHER
+ R2.0 fibrous batts



CALCULATION REF: 18077

WINTER **R_T3.7** SUMMER **R_T3.4**

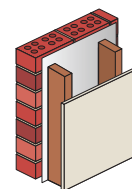
BRICK VENEER WALL
with one layer of FIRE SARK™ BREATHER
+ R2.0 Fibrous Batt



CALCULATION REF: 299w50

WINTER **R_T1.2** SUMMER **R_T1.0**

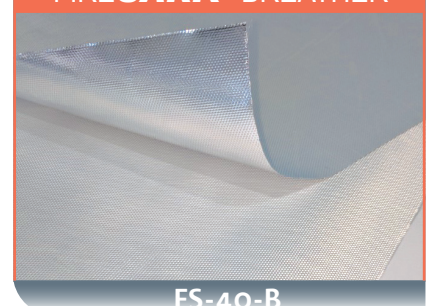
BRICK VENEER WALL
with one layer of FIRE SARK™ BREATHER



CALCULATION REF: 299w391fs

WINTER **R_T1.3** SUMMER **R_T1.2**

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FS-40-B



ametalin
Insulation Systems & Building Membranes

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Material Properties and Classifications

FIRE SARK™ BREATHER classifications in accordance with AS/NZS 4200.1:2017 and AS/NZS 4859.1:2002, Amdt 1 2006

CRITERIA	REFERENCE	RESULT	REQUIREMENT
COMBUSTIBILITY	AS 1530.1-1994	Not Deemed Combustible	(Fibre glass weave)
FLAMMABILITY INDEX	AS 1530.2-1993	Low ≤ 5	High (>5) / Low (≤ 5)
IGNITABILITY INDEX	AS/NZS 1530.3:1999	0	0-20
FLAME PROPOGATION	AS/NZS 1530.3:1999	0	0
HEAT EVOLVED	AS/NZS 1530.3:1999	0	0-10
SMOKE DEVELOPED	AS/NZS 1530.3:1999	2	≤ 3
DUTY	AS/NZS 1530.3:1999	Extra Heavy	Classification
TENSILE STRENGTH MACHINE DIRECTION	AS 1301.448s-91	58 kN/m	Min 13 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 PROCEDURE B	Class 3 Vapour Permeable	Class 1 to 4
VAPOUR PERMEANCE	ASTM E96 PROCEDURE B	0.8111 µg/N.s	Value
WATER CONTROL	AS/NZS 4201.4:1994	Non Water Barrier	Water Barrier or Non-Water Barrier
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 (RFL PRODUCTS)	Electrically Conductive	Electrically Conductive or Electrically Non-conductive
EMITTANCE VALUE	AS/NZS 4200.1:2017	0.03, 0.9	Value
EMITTANCE CLASSIFICATION	AS/NZS 4200.1:2017	IR Reflective, IR Non-Reflective,	IR Reflective ≤ 0.05
EMITTANCE CATEGORY	AS/NZS 4200.1:2017	RN	

NCC Compliant

FIRE SARK™ BREATHER complies with AS/NZS 4859.1:2002/ Amdt 1:2006 and AS/NZS 4200.1:2017, and therefore meets all requirements of the National Construction Code for insulation and pliable building membranes.

Fire Performance

FIRE SARK™ BREATHER is suitable for use in non-combustible construction in compliance with NCC 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. The bright aluminium face features an ignition temperature in excess of 1000°C (reference: Fire Protection Handbook, 19th edition).

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 weave has achieved a result of not deemed combustible when tested in accordance with AS 1530.1—1994.

AS 1530.2—1993 *Methods for fire tests on building materials, components and structures Part 2: Test for flammability of materials*
FIRE SARK™ BREATHER has a flammability index of 1.

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 indices for early fire hazard for FIRE SARK™ BREATHER are low or zero.

BUSHFIRE ATTACK LEVELS

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.

Dimensions

FIRE SARK™ BREATHER is sold in size: 1350 mm x 30 m (40.5 m²)

Specification Notes

FIRE SARK™ BREATHER

The insulation to be installed shall be FIRE SARK® BREATHER micro-perforated single-sided reflective laminate, emittance bright side 0.03. Product is manufactured by Ametalin and shall be installed in accordance with AS 4200.2:2017 Pliable Building Membranes and Underlays, Part 2: Installation Requirements.

Handling & Storage

This product should be stored under cover in a clean, dry place in the pack provided.

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AUSTRALIAN DESIGNED, AUSTRALIAN OWNED.

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Manufacturers of building membranes | insulation products | flexible packaging



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HEALTH AND SAFETY INFORMATION

Ametalin has assessed FIRE SARK™ BREATHER according to the criteria outlined in the National Occupational Health and Safety Commission (NOHSC): 1008 (2004) and List of Designated Hazardous Substances, NOHSC, Canberra. As a result of the assessment, this product is classified as non-hazardous according to the NOHSC criteria.

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. Risk assessment and hazard control measures contained in federal, state and territory WHS legislation have to be followed. Aluminium Foil Insulation Association Inc. (AFIA) has prepared Work Methods Statement and Hazard Management forms to assist contractors and installers in safe installation of reflective insulation products, these are available on 2009 AFIA WMS & Hazard Management www.afia.com.au/news/health-and-safety/.

FIRE SARK™ BREATHER should be selected and installed to fulfil the function specified in the design in accordance with AS 4200.2: 2017 *Pliable Building Membranes and Underlays, Part 2: Installation Requirements*.

GENERAL

FIRE SARK™ BREATHER is not designed to withstand prolonged direct exposure to the elements. Accordingly, upon application of this product, 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, an air space adjacent to each side of the product is recommended.

Exposure of FIRE SARK™ BREATHER to extremely intense heat, sparks, flames, and abrasive tools shall be avoided.

Any damage done to membrane during installation including holes and tears shall be repaired.

TIMBER & STEEL FRAMED CONSTRUCTION:

- ▶ BRICK VENEER
- ▶ DOUBLE BRICK
- ▶ REVERSE BRICK VENEER

FRAMED WALLS & GABLES

Common to all walls, joints shall be lapped not less than 150 mm or lapped not less than 50 mm and taped. All end laps shall be fixed at a stud to form a continuous membrane.

Where the product is intended to act as a thermal control membrane, ensure the airgap to the low emittance side is maintained and shall be ≥ 20 mm.

The product should extend from the top plate to the bottom plate on concrete slabs or top plate to the bearers in timber constructions. Stagger any vertical overlaps.

For fastening to timber in drained cavity constructions; use mechanical fixings in the form of Cap Nails, galvanised clouts or staples. Fix at 300 mm centres, prior to cladding.

For fastening to steel frame in drained cavity constructions; secure with tek screws at 300 mm centres, prior to cladding.

In high wind areas, it is recommended to install using flat punched multi-point fasteners or cap screws.

AMETALIN TAPE RANGE

It is recommended to use the following when required to secure, join or seal this product

Ametalin Reinforced Insulation/Ducting Tape – IDTR-7250, 72 mm x 50 m

HANDLING AND STORAGE

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