

Roof and wall home insulation

For R0.2 thermal break in-situ performance for steel framed residential construction

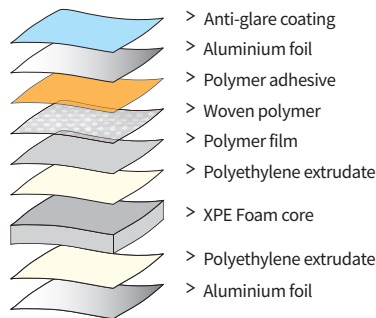


Trade Select™ ThermalBreak® is an Extra Heavy Duty three-in-one reflective insulation, Thermal Break and Class 2 Vapour Barrier for use in all roof and wall types. It meets the NCC requirements for in-situ material R-value of R0.20 for a thermal break in steel framed construction, and is also suitable for use in timber framed construction. Designed to manage heat gain and heat loss, Trade Select™ ThermalBreak® offers superior thermal performance to conventional insulation, and reduces thermal bridging and conductivity between building elements.

- > Extra Heavy Duty
- > Group 1 Fire performance classification
- > R0.2 Thermal Break in-situ
- > Acoustic dampener
- > Low Flammability, suitable for all BALs in bushfire-prone areas
- > Can also be used for timber frame and commercial steel frame constructions

Construction

Trade Select™ ThermalBreak® consists of a 7.8 mm core of chemically cross-linked, closed-cell XPE foam, one-layer of aluminium is laminated to one side with emissivity of 0.03 and one-layer of polymer weave to other side with emissivity of 0.05.



Total System R-Values

Commercial Office Roof
suspended ceiling at 1000 mm,
with ThermalBreak®

Winter **R_t 0.92**

Summer **R_t 2.02**

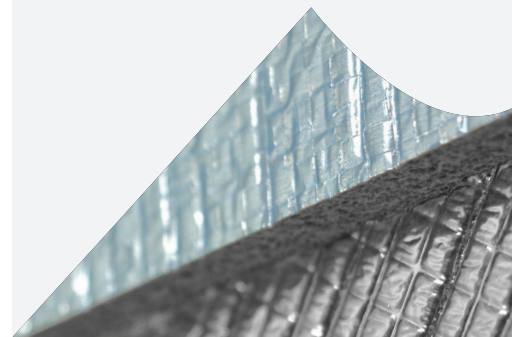
Double Brick
with ThermalBreak®

Winter **R_t 2.07**

Summer **R_t 2.03**

Trade Select™ ThermalBreak features a material R-value of R0.21 to meet Thermal Break requirements. When it is incorporated into typical construction systems, the following thermal performance can be achieved.

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, seek advice based on actual site conditions from a qualified licensed engineer. The contributions of this product to the total system R-value depends on installation and environmental conditions.



Material Properties and Classifications

Trade Select™ ThermalBreak® 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 Thermal Resistance	ASTM C518	0.21 m ² ·K/W (R _M 0.21)	Classification
Compressed Material Thermal Resistance	ASTM C518	0.20 m ² ·K/W (R _M 0.20)	
Duty	AS/NZS 4200.1:2017	Extra Heavy	Classification
Tensile Strength Machine Direction	AS 1301.448s-91	14.6 kN/m	Min 9.5 kN/m
Tensile Strength Lateral Direction	AS 1301.448s-91	13.6 kN/m	Min 6.0 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	384 N	Min 65 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	293 N	Min 65 N
Vapour Control	ASTM E96	Class 2 Vapour Barrier	Class 1 to 4
Vapour Permeance	ASTM E96	0.0113 µg/N.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	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

Trade Select™ ThermalBreak® 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, pliable building membranes and sarking-type materials.

Fire Performance

Group Number Assessment

Group 1

Assessed in accordance with AS 5637.1:2015 *Determination of fire hazard properties* by Ignis Solutions professional fire engineers.

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 22.25 m + 150 mm flap (30 m²)

Nominal thickness: 7.8 mm

Specification Notes

When specifying, state the following:

Product Name: Trade Select™ ThermalBreak®

The insulation to be installed shall be Trade Select™ ThermalBreak® double sided reflective, fibre-free thermo-reflective insulation, comprised of cross-linked, closed-cell core XPE foam with anti-glare foil facing on one side and plain foil facing on the other side, and 150 mm overlap piece included. Material R-value in-situ R0.20 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

Material R-value: R0.21 uncompressed / R0.20 in-situ

Vapour Control Classification: Class 2 Vapour Barrier, 0.0113 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.tradeselect.co/>

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.

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 SA 5108 T: +61 8 8285 6955 F: +61 8 8285 5911 E: info@ametalin.com

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