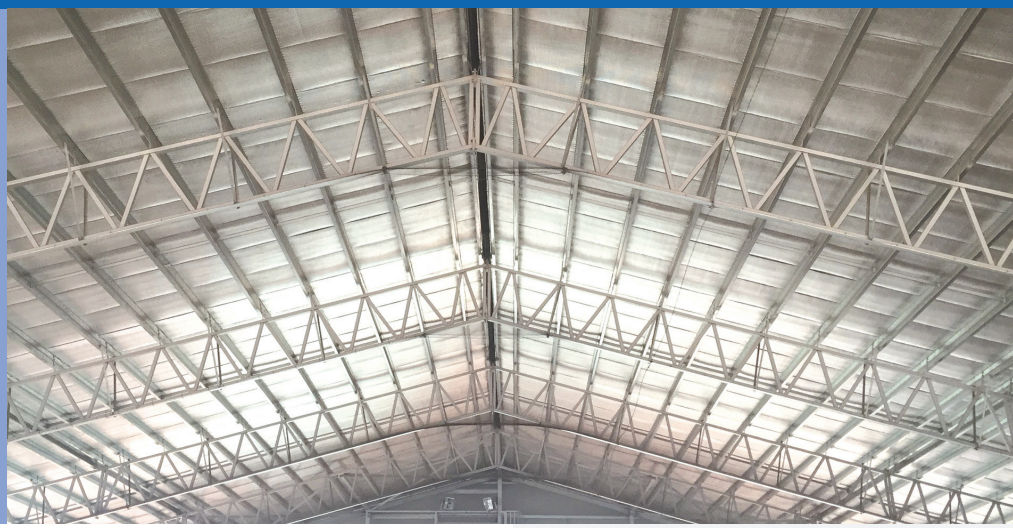
Trade Select™ ThermalBreak™

Product Code: TSTB7

Roof and wall home insulation

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

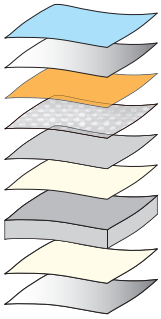


Trade Select™ ThermalBreak™ is an Extra Heavy Duty three-in-one reflective insulation, Thermal Break and Class 2 Vapour Barrier for use in all roof and wall types. It meets the NCC requirements for in-situ material R-value of R0.20 for a thermal break in steel framed construction, and is also suitable 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.



- Anti-glare coating
- Aluminium foil
- Polymer adhesive
- Woven polymer
- Polymer film
- Polyethylene extrudate
- XPE Foam core
- Polyethylene extrudate
- Aluminium foil

Declared Total System R-Values

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

Winter **R_T 0.92**

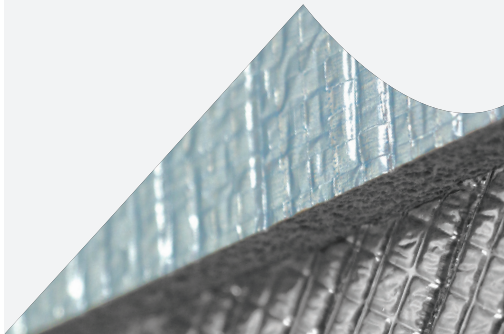
Summer **R_T 2.02**

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 4859.1:2018.*
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.



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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 Re-sistance	*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 m^2)

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