Trade Select™ THERMALBREAK 8 PLUS™

EXTRA HEAVY DUTY

DOUBLE SIDED REFLECTIVE FOAM INSULATION | RESIDENTIAL & COMMERCIAL

MEETS NCC REQUIREMENTS FOR A THERMAL BREAK OF R0.2 IN STEEL FRAMED CONSTRUCTION

Product Code: TSTB8-30

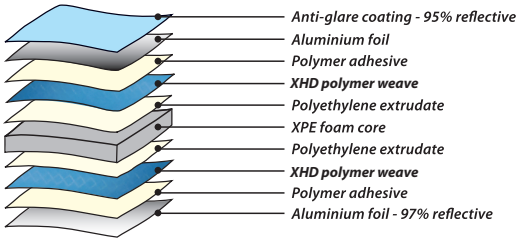
Trade Select™ THERMALBREAK 8 PLUS™ is a dual weave Extra Heavy Duty three-in-one reflective insulation, thermal break and medium vapour barrier for use in all roof, wall and floor types. It meets the NCC requirements for in-situ material R-value of R0.20 for a thermal break in steel framed construction, and is also suitable for use in timber framed construction.

Designed to manage heat gain and heat loss, Trade Select™ THERMALBREAK 8 PLUS™ offers superior thermal performance over conventional insulation, and reduces thermal bridging and conductivity between building elements.

- Dual weave construction for superior durability and tear resistance.
- 150 mm flap provided for increased coverage and reduced wastage.
- Made with high-density XPE foam; compression in-situ is minimised.
- Contributes a reflective R-value when installed adjacent to an air cavity.
- Highly effective in dampening noise.
- Fibre-free and non-allergenic.
- Water resistant, fire resistant.
- Rigorously tested by independent recognised accredited laboratories in compliance with *AS/NZS 4859.1:2002/Amdt 1:2006* to ensure all product claims are met.

Construction

Trade Select™ THERMALBREAK 8 PLUS™ is made with aluminium foil laminates with reflectivity of 97% and emissivity of 0.03 to one side and 95% reflectivity and emissivity of 0.05 to the other, in compliance with *AS/NZS 4200.1:2017*. At its core is 8.0 mm of chemically cross-linked, closed-cell high-density XPE foam.



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

Declared Total System R-values for Typical Systems*

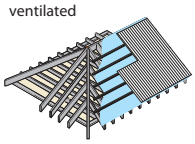
Trade Select™ THERMALBREAK 8 PLUS™ has a material R-value of R0.21 to meet thermal break requirements. When it is incorporated into typical construction systems, the following thermal performance can be achieved:

		WINTER	SUMMER
Metal Roof unventilated	22° Pitched metal roof, 190 mm **raked ceiling** CALC. REF: 12239	R_T1.4	R_T3.7
Metal Roof ventilated	22° Pitched metal roof with **flat ceiling** CALC. REF: 12335 / 299r404	R_T1.3	R_T2.8
Metal Roof unventilated	22° Pitched metal roof with **flat ceiling** CALC. REF: 299r405	R_T1.5	R_T2.5
Tile Roof unventilated	22° Pitched tile roof with **flat ceiling** CALC. REF: 12164	R_T1.5	R_T2.5
Commercial Office Roof	Suspended ceiling at 1000 mm CALC. REF: 299r381	R_T1.4	R_T4.6
Warehouse Shed Roof	5° metal roof 100 mm ceiling CALC. REF: 299r380	R_T1.5	R_T3.2
Warehouse Shed Roof	5° metal roof with no ceiling CALC. REF: 299r382	R_T1.0	R_T2.0
Steel Stud Framed Wall	Metal cladding direct to 90 mm stud, no lining CALC. REF: 299w44	R_T1.3	R_T1.1

** The contribution of this product to the total system R-value depends on installation and environmental conditions. The R-values will be reduced in the event of the accumulation of dust on upward facing surfaces and in those cavities that are ventilated.*

DECLARED TOTAL SYSTEM R-VALUES*

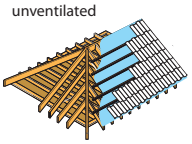
METAL ROOF
22° pitched flat ceiling ventilated



CALCULATION REF: 299r404

WINTER	R_T1.3
SUMMER	R_T2.8

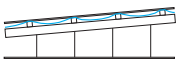
TILE ROOF
22° pitched flat ceiling unventilated



CALCULATION REF: 12164

WINTER	R_T1.5
SUMMER	R_T2.5

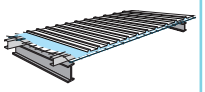
COMMERCIAL OFFICE
5° pitched, 1000 mm ceiling



CALCULATION REF: 299r381

WINTER	R_T1.4
SUMMER	R_T4.6

WAREHOUSE SHED
5° pitched, no ceiling

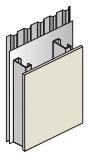


CALCULATION REF: 299r382

WINTER	R_T1.0
SUMMER	R_T2.0

WALLS:

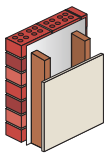
Stud Framed



CALCULATION REF: 299w510

WINTER	R_T1.9
SUMMER	R_T1.7

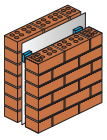
Brick Veneer



CALCULATION REF: 299w371

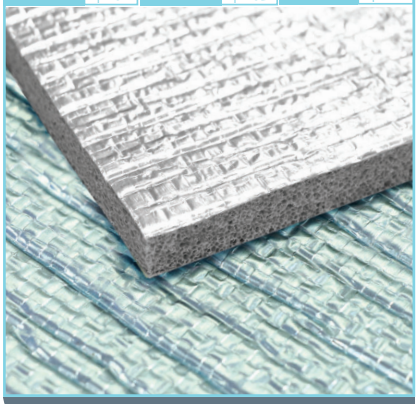
WINTER	R_T2.2
SUMMER	R_T1.9

Double Brick



CALCULATION REF: 299w3811b

WINTER	R_T2.3
SUMMER	R_T2.1



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Material Properties and Classifications

Trade Select™ THERMALBREAK 8 PLUS™ classifications in accordance with *AS/NZS 4200.1:2017* and *AS/NZS 4859.1:2006*

CRITERIA	REFERENCE	RESULT	REQUIREMENT
MATERIAL THERMAL RESISTANCE	*ASTMC518*	0.21 m^2·K/W (R_M 0.21)	
MATERIAL THERMAL RESISTANCE COMPRESSED		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*	21.4 kN/m	Min 13.0 kN/m
TENSILE STRENGTH LATERAL DIRECTION	*AS 1301.448s-91*	19.4 kN/m	Min 10.5 kN/m
EDGE TEAR MACHINE DIRECTION	*TAPPI T 470 om-89*	1078 N	Min 90 N
EDGE TEAR LATERAL DIRECTION	*TAPPI T 470 om-89*	939 N	Min 90 N
VAPOUR CONTROL	*ASTM E96*	Class 2 (Medium)	Class 1 to 4
VAPOUR PERMEANCE	*ASTM E96*	0.0371 µg/N.s	µg/N.s
WATER CONTROL	*AS/NZS 4201.4:1994*	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%
FLAMMABILITY INDEX	*AS 1530.2-1993*	Low ≤ 5	High (>5) / Low (≤ 5)
ELECTRICAL CONDUCTIVITY	*AS 4200.1:2017* *AS/NZS 3100.1:2017*	Electrically Conductive -	Electrically Conductive or Electrically Non-conductive
EMITTANCE VALUE	*AS/NZS 4201.5:1994*	Bright side: 0.03 Anti-glare side: 0.05	Value
EMITTANCE CLASSIFICATION	*AS/NZS 4200.1:2017*	IR Reflective, IR Reflective - RR	IR Reflective ≤ 0.05
THICKNESS		8 mm	
NOMINAL WEIGHT		17.9 kg	

Vapour Control Properties

Trade Select™ THERMALBREAK 8 PLUS™ has a Water Vapour Transmission (WVT) rate of 1.92 grams per square metre per 24 hours tested at 23°C, 50% Relative Humidity (RH).

NCC Compliant

Trade Select™ THERMALBREAK 8 PLUS™ complies with *AS/NZS 4859.1:2002/Amdt 1:2006* and *AS/NZS 4200.1:2017*, and therefore meets all the requirements of the *National Construction Code* for insulation and pliable building membranes.

BUSHFIRE ATTACK LEVELS

Trade Select™ THERMALBREAK 8 PLUS™ 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.

Total System R-values

R-values apply to typical conditions for mainland Australian capital cities and have been calculated 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.

Storage

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

Dimensions

Trade Select™ THERMALBREAK 8 PLUS™ is sold in size:
1350 mm x 22.25 m (30 m^2) + 150 mm flap

Specification Notes

When specifying, state the following:
Product Name: Trade Select™ THERMALBREAK 8™ PLUS

The insulation to be installed shall be Trade Select™ THERMALBREAK 8™ PLUS 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. 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*.

Emittance Bright Side: 0.03, Anti-glare Side: 0.05
Material R-value: R0.21 uncompressed / R0.20 in-situ
Vapour Permeance: 0.0371 µg/N•s
Water Vapour Transmission (WVT): 1.9 g/m^2•24 hr
Vapour Resistance: 64.89 MN•s/g
Vapour Control Classification: Class 2, (Medium)
Water Control Classification: Water Barrier
Flammability Index: ≤5 (Low)
Duty: Extra Heavy in accordance with *AS/NZS 4200.1:2017*

Durability may be affected by environmental factors, including chemical and airborne pollutants, if used in industrial or farm buildings.

Performance insulation for a greener world
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