

## ThermalBreak 8 Plus™

Product Code:TB8

### Roof and wall commercial insulation

For R0.2 thermal break in-situ performance for steel frame and purlin commercial construction



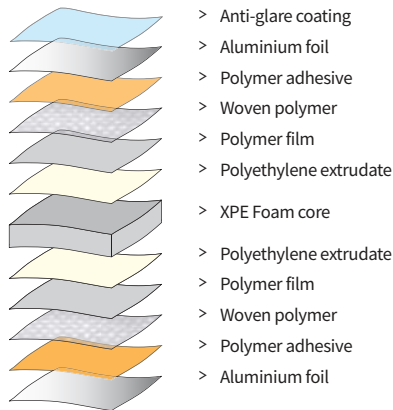
ThermalBreak 8 Plus™ is a dual weave Extra Heavy Duty three-in-one reflective insulation, thermal break and Class 2 Vapour Barrier for use in all roof, wall and floor types. It meets the NCC requirements for in-situ material R-value of R0.20 for a thermal break in steel framed construction, and is also suitable for use in timber framed construction.

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

- > Extra Heavy Duty
- > Dual weave construction for premium strength, durability & tear resistance
- > R0.2 Thermal Break in-situ
- > Acoustic Dampener
- > Low Flammability, suitable for all BALs in bushfire-prone areas
- > Can also be used for residential steel frame constructions

### Construction

ThermalBreak 8 Plus™ consists of a 8 mm core of chemically cross-linked, closed-cell high-density XPE foam, laminated both sides with strong woven polymer / aluminium foil with emissivity of 0.05 to one side and emissivity of 0.03 to the other.



### Declared Total System R-Values

#### Commercial Office Roof

5° pitched metal roof with 1000mm suspended ceiling with ThermalBreak 8 Plus™

Winter **R<sub>t</sub> 3.2**

Summer **R<sub>t</sub> 2.9**

#### Warehouse Shed Wall

metal cladding direct to 90mm stud, no lining with ThermalBreak 8 Plus™

Winter **R<sub>t</sub> 1.3**

Summer **R<sub>t</sub> 1.1**

Ametalin 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.

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.

## Material Properties and Classifications

ThermalBreak 8 Plus™ classifications in accordance with AS/NZS 4200.1:2017 and AS/NZS 4859.1:2002, Amdt 1:2006.

Criteria	Reference	Result	Requirement
Flammability Index	AS 1530.2-1993	Low ≤ 5	High (> 5) / Low (≤ 5)
Material Thermal Resistance	ASTM C518	0.21 M2.K/W (Rm 0.21)	Classification
Compressed Material Thermal Resistance	ASTM C518	0.20 M2.K/W (Rm 0.20)	
Duty	AS/NZS 4200.1:2017	Extra Heavy	Classification
Tensile Strength Machine Direction	AS 1301.448s-91	21.4 kN/m	Min 9.5 kN/m
Tensile Strength Lateral Direction	AS 1301.448s-91	19.4 kN/m	Min 6.0 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	1078 N	Min 65 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	939 N	Min 65 N
Vapour Control	ASTM E96	Class 2 Vapour Barrier	Class 1 to 4
Vapour Permeance	ASTM E96	0.0156 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	Electrically 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

ThermalBreak 8 Plus™ complies with AS/NZS 4859.1:2002/Amdt 1:2006 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

### Flammability Index

Low (≤5)

Tested in accordance with AS1530.2-1993 - Methods for fire tests on building materials, components and structures Part 2: Test for flammability of materials.

### Bushfire Attack Levels

Complies with AS3959-2018 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<sup>2</sup>)

Nominal thickness: 8 mm

## Specification Notes

When specifying, state the following:

Product Name: Ametalin ThermalBreak 8 Plus™

The insulation to be installed shall be Ametalin 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 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, 0.0156 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 under cover out of direct sunlight, in a clean dry place in the pack provided.

## Performance insulation for a greener world

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**Ametalin**

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](mailto:info@ametalin.com)

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