

Cavity wall insulation

For residential homes or commercial sheds

For cavities in brick veneer and double brick walls



Trade Select™ ThermalCavity™ is an Extra Heavy Duty three-in-one reflective insulation, thermal break and Class 1 Vapour Barrier. ThermalCavity™ is suitable for use in residential and commercial double brick cavity and masonry walls.

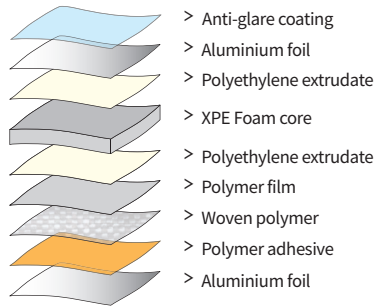
Designed to manage heat gain and heat loss, ThermalCavity™ offers superior thermal performance to conventional insulation, and reduces thermal bridging and conductivity between building elements.

The outward facing reflective anti-glare foil surface provides a reflective air cavity between the brick leaves and also the stud frame and the brick leaf, adding substantially to the system R-value of the wall. This is a simple way to enhance the home's energy efficiency without requiring a change in common construction practices.

- > High performance, flexible R0.11 reflective foam insulation
- > Ideal for masonry cavity systems in tropical climate zones
- > Class 1 Vapour Barrier and Air Barrier
- > Low glare
- > Acoustic dampener
- > Low Flammability, suitable for all BALs in bushfire-prone areas

Construction

ThermalCavity™ consists of a 4 mm core of chemically cross-linked, closed-cell high-density XPE foam laminated with strong polymer weave and aluminium foil with reflectivity of 91% reflectivity and emissivity of 0.09 to one side and 97% and emissivity of 0.03 to the other.



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

Total System R-Values

Double Brick Cavity Wall

with ThermalCavity™

Winter **R, 1.88**

Summer **R, 1.83**

Brick Veneer Wall

with ThermalCavity™

Winter **R, 1.63**

Summer **R, 1.58**

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 readers are advised to seek advice from a qualified engineer, based on actual site conditions.

The contributions of this product to the total system R-value depends on installation and environmental conditions.

Material Properties and Classifications

ThermalCavity™ 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	0.11 m ² ·K/W (R _M 0.1)	Value
Tensile Strength Machine Direction	AS 1301.448s-91	15.9 kN/m	Min 9.5 kN/m
Tensile Strength Lateral Direction	AS 1301.448s-91	14.6 kN/m	Min 6.0 kN/m
Edge Tear Machine Direction	TAPPI T 470 om-89	666 N	Min 65 N
Edge Tear Lateral Direction	TAPPI T 470 om-89	606 N	Min 65 N
Vapour Control	ASTM E96	Class 1 Vapour Barrier	Class 1 to 4
Vapour Permeance	ASTM E96	0.001 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: 0.09, Bright side: 0.03	Value
Emittance Classification	AS/NZS 4200.1:2017	IR Semi-reflective, IR Reflective	Classification
Emittance Category	AS/NZS 4200.1:2017	RS	Category

NCC Compliant

Trade Select™ ThermalCavity™ 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

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 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 (30 m²)

Nominal thickness: 4 mm

Specification Notes

When specifying, state the following:

Product Name: Trade Select™ ThermalCavity™

The insulation to be installed shall be Trade Select™ ThermalCavity™ 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. Material R-value is R0.11 and shall be installed in accordance with AS 4200.2:2017 *Pliable Building Membranes and Underlays, Part 2: Installation.*

Emittance Value: 0.9, 0.03

Emittance Classification: IR Semi-reflective, IR Reflective

Material Value: R0.11

Vapour Control Classification: Class 1 Vapour Barrier, 0.001 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 upright and under cover in a clean, dry place in the pack provided.

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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