

ThermalLiner™

Product Code: TB4

Roof and wall shed insulation

For residential homes or commercial sheds

Extra R-Value



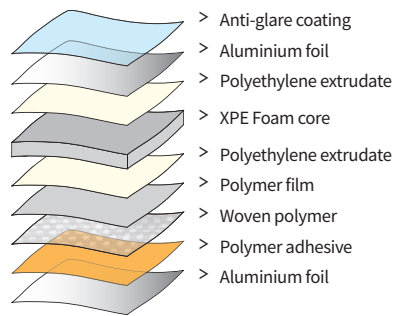
ThermalLiner™ is an Extra Heavy Duty three-in-one reflective insulation, thermal break and Class 2 Vapour Barrier. ThermalLiner™ is suitable for use in roof, wall and floor applications. Designed to manage heat gain and heat loss, ThermalLiner™ offers superior thermal performance to conventional insulation, and reduces thermal bridging and conductivity between building elements. ThermalLiner™ is ideal for use in residential homes and commercial sheds.

- > Extra Heavy Duty
- > Flexible R0.1 reflective foam insulation liner
- > Low glare
- > High performance thermal insulation
- > Acoustic dampener
- > Low Flammability, suitable for all BALs in bushfire-prone areas

Construction

ThermalLiner™ 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 95% reflectivity and emissivity of 0.05 to one side and 97% and emissivity of 0.03 to the other.

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



Total System R-Values

(Based on NCC 2019)

Shed Roof

5° pitched with no ceiling

Winter **R_t 0.82**

Summer **R_t 1.86**

Shed Wall

No lining

Winter **R_t 0.95**

Summer **R_t 0.91**

ThermalLiner has a material R-value of R0.1. 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. These values have been calculated specifically for use under NCC 2019 requirements and may not be valid for compliance with other editions. 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

ThermalLiner™ classifications in accordance with AS/NZS 4200.1:2017 and AS/NZS 4859.1:2018

Criteria	Reference	Result	Requirement
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%
Material Thermal Resistance	ASTM C518	0.11 m ² ·K/W (R _M 0.1)	Value
Electrical Conductivity	AS/NZS 4200.1:2017	Electrically Conductive	Classification
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
Air Control	AS/NZS 4200.1:2017	Air Barrier	Classification
Emittance Value	AS/NZS 4201.5:1994	Anti-glare side: 0.05, Bright 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
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
Flammability Index	AS 1530.2-1993	Low ≤ 5	High (> 5) / Low (≤ 5)

NCC Compliant

ThermalLiner™ is compliant for use in Australia according to the *National Construction Code* for Pliable Building Membranes and Sarking-type Materials when correctly specified and installed.

Fire Performance

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

1500 mm x 20 m (30 m²)

Nominal thickness: 4 mm

Specification Notes

When specifying, state the following:

Product Name: Ametalin ThermalLiner™

The insulation to be installed shall be ThermalLiner™ 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. 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: 0.05, 0.03

Emittance Classification: IR 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

Please visit our website for ThermalLiner™ Limitations of Use.

Complete details including installation instructions are available on our website: www.ametalin.com

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.

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. 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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