

## ThermalLiner 4™

Product Code: TB4

### Roof and wall shed insulation

For residential homes or commercial sheds



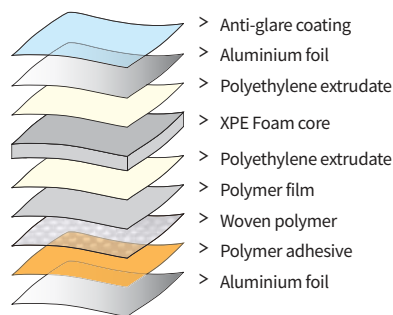
ThermalLiner 4™ is an Extra Heavy Duty three-in-one reflective insulation, thermal break and Class 2 Vapour Barrier. ThermalLiner 4™ is suitable for use in roof, wall and floor applications. Designed to manage heat gain and heat loss, ThermalLiner 4™ offers superior thermal performance to conventional insulation, and reduces thermal bridging and conductivity between building elements. ThermalLiner 4™ 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 4™ 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% 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.



### Declared Total System R-Values

#### Residential Metal Roof

22° pitched roof with flat ceiling unventilated ThermalLiner 4™

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

Summer **R<sub>t</sub> 2.3**

#### Commercial or Shed Roof

5° metal roof with no ceiling with ThermalLiner 4™

Winter **R<sub>t</sub> 0.9**

Summer **R<sub>t</sub> 1.9**

#### Steel Stud Framed Wall

90 mm studs lined with 10 mm plasterboard with ThermalLiner 4™

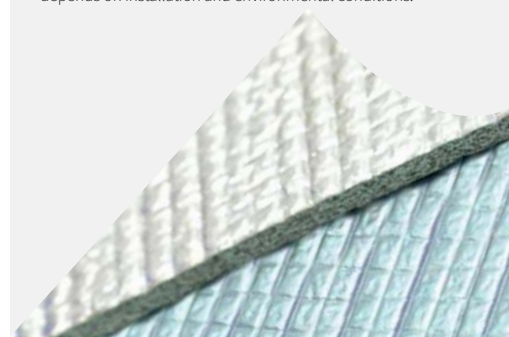
Winter **R<sub>t</sub> 1.7**

Summer **R<sub>t</sub> 1.5**

ThermalLiner 4™ 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 4859.1:2002/ Amdt 1:2006. 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 4™ 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	0.11 m <sup>2</sup> .K/W (Rm 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: 0.05, 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

## NCC Compliant

ThermalLiner 4™ 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 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 m<sup>2</sup>)

Nominal thickness: 4 mm

## Specification Notes

When specifying, state the following:

Product Name: Ametalin ThermalLiner 4™

The insulation to be installed shall be ThermalLiner 4™ 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

Complete details available on our website:

<https://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. 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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