Ametalin

Performance insulation for a greener world

ThermalLiner™ HandyPack

Product Code: TB4-9

Roof and wall shed insulation

For use in DIY applications in your home and shed

ThermalLiner™ HandyPack is an Extra Heavy Duty three-in-one reflective insulation, Thermal Break and Class 1 Vapour Barrier. Designed to manage heat gain and heat loss, ThermalLiner™ HandyPack offers superior thermal performance to conventional insulation, and reduces thermal bridging and conductivity between building elements providing year round thermal comfort in your home or shed. Supplied as a smaller roll size, it is ideal and easy to handle for small DIY applications such as garages, tilt or panel lift garage doors, pet houses and more.

- **Extra Heavy Duty**
- **Flexible R0.11 reflective foam insulation liner**
- **Ideal size for DIY home sheds and home improvements**
- **Radiant barrier for RV's & camping accessories**
- **Fibre-free and non-allergic**

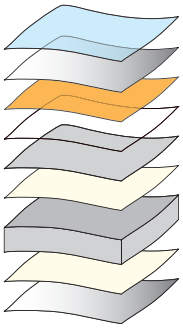
Application

Install ThermalLiner™ HandyPack facing an air space on either side for increased reflective R-value. ThermalLiner™ HandyPack reduces the need for additional wall insulation and increases overall thermal performance of the building system.

Construction

ThermalLiner™ HandyPack consists of a 4 mm core of chemically cross-linked, closed-cell high-density XPE foam laminated with strong polymer weave and aluminium foil, one side with an innovative low-glare, high IR reflection ink technology for ease of installation.

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



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

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**

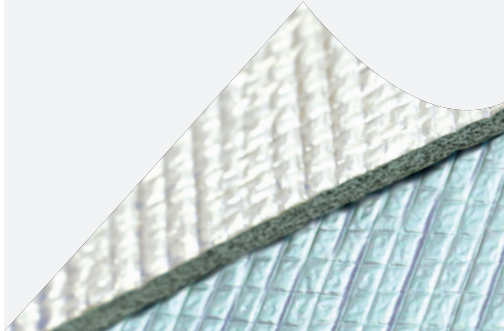
Shed Wall

No lining

Winter	R_T **0.95**
Summer	R_T **0.91**

ThermalLiner™ HandyPack has a material R-value of R0.11. When it is incorporated into typical construction systems, the above 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.



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Material Properties and Classifications

ThermalLiner™ HandyPack 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™ HandyPack 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 *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

1350 mm x 6.67 m (9 m^2)
Nominal thickness: 4 mm

Specification Notes

When specifying, state the following:
Product Name: Ametalin ThermalLiner™ HandyPack

The insulation to be installed shall be ThermalLiner™ HandyPack 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
Air Control Classification: Air Barrier
Duty: Extra Heavy in accordance with *AS/NZS 4200.1:2017*

Please visit our website for ThermalLiner™ HandyPack 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.

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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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