

# SILVERBATTSTM

## TRIPLE LAYER COMMERCIAL REFLECTIVE MULTI-LAYER INSULATION



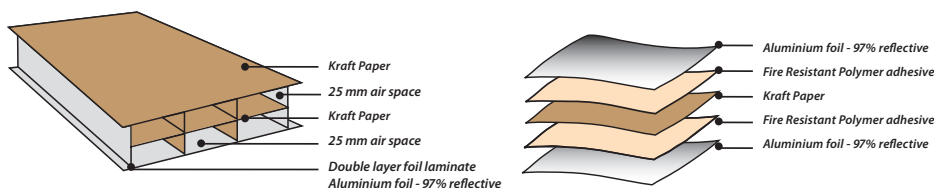
**Product: TLC-4501200**

SILVERBATTSTM TRIPLE-LAYER COMMERCIAL (TLC) is an expandable 97% reflective insulation panel, designed for use under concrete slab soffits in residential and commercial buildings. Double-sided reflective panelling creates two reflective air spaces in your ceiling structure, increasing the R-value of your building system.

- ✓ 97% Reflective
- ✓ Fibre-free & non-allergenic
- ✓ Moisture resistant
- ✓ Easy to install

### Construction

SILVERBATTSTM TLC is manufactured with sheets of five-layer aluminium foil laminate, composed of kraft paper with aluminium foil bonded to both sides with a fire-resistant polymer adhesive. Three layers of foil laminate are assembled together, separated by vertical webbings of the same material, to create the panel. A flange at each side allows multiple panels to interlock. SILVERBATTSTM TLC has a paper backing on one side, which enables it to be adhered under concrete slabs, timber floors, etc.



### Application

SILVERBATTSTM TLC is designed for use in ceilings and soffits in commercial and industrial applications.

SILVERBATTSTM TLC can be used in a range of systems. R-values vary depending on direction of heat flow and the thickness of reflective air spaces created. Reports on system R-values, calculated in accordance with AS/NZS 4859.1:2002 by an accredited thermal engineering consultant, are available for each application of this product.

### Installation

SILVERBATTSTM TLC is sold flat and expanded on site. SILVERBATTSTM TLC is installed by applying a suitable adhesive to the paper side of the product and then pressing into position onto the concrete or timber surface. Once the adhesive has cured, pull SILVERBATTSTM TLC into its expanded shape.

SILVERBATTSTM TLC is non-toxic, non-allergenic, non-irritant and not classified as hazardous according to WorkSafe Australia criteria. No protective clothing or breathing filters are required. It is recommended that a dust mask and eye protection be worn to protect the installer from any disturbed dust.

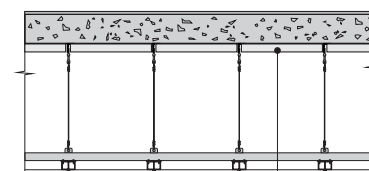
Manufacturer's approval or independent advice should be sought for any proposed usage outside of the recommended application.

\* The contribution of this product to the total R-value depends on installation and environmental conditions. The R-value will be reduced in the event of the accumulation of dust on upward facing surfaces and in those cavities that are ventilated.

### DECLARED TOTAL SYSTEM R-VALUES\*

#### FLAT CONCRETE ROOF SOFFIT

150 mm concrete slab roof with one layer of SILVERBATTSTM TLC glued beneath concrete slab, 600 mm - 1000 mm suspended ceiling

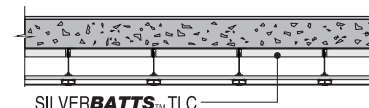


CALCULATION REF: 12387

WINTER **R<sub>T</sub>1.9** SUMMER **R<sub>T</sub>5.3**

#### FLAT CONCRETE ROOF SOFFIT

150 mm concrete slab roof with one layer of SILVERBATTSTM TLC glued beneath concrete slab, 200 mm suspended ceiling



CALCULATION REF: 12223

WINTER **R<sub>T</sub>1.9** SUMMER **R<sub>T</sub>4.4**

#### FLAT CONCRETE ROOF SOFFIT

150 mm concrete slab roof with one layer of SILVERBATTSTM TLC glued beneath concrete slab, no ceiling



CALCULATION REF: 12384

WINTER **R<sub>T</sub>1.4** SUMMER **R<sub>T</sub>2.6**



**TLC-4501200**

## Classification

SILVERBATTS™ TLC classifications under AS/NZS 4200.1:1994

PRODUCT		SILVERBATTS™ TLC			
		HEAT FACTOR	SPREAD FACTOR	IGNITABILITY	SMOKE DEVELOPED
<b>FIRE PERFORMANCE</b>	AS 1530.3-1993	0	0	0	0
<b>EMITTANCE</b>	AS/NZS 4201.5:1994	SIDE A: 0.03	SIDE B: 0.03		
<b>REFLECTIVITY</b>		97%			
<b>RESISTANCE TO DRY DELAMINATION</b>	AS/NZS 4201.1:1994	Pass			
<b>RESISTANCE TO WET DELAMINATION</b>	AS/NZS 4201.2:1994	Pass			
<b>SHRINKAGE</b>	AS/NZS 4201.3:1994	< 0.5%			

NOTE: These are the minimum performance figures when tested in accordance with AS/NZS 4200.1:1994. They are not production specifications.

## NCC/BCA Compliant

SILVERBATTS™ TLC complies with AS/NZS 4200.1:1994 and AS/NZS 4859.1:2002 and therefore satisfies all requirements of the National Construction Code and Building Code of Australia.

## Durability

### Weather

SILVERBATTS™ TLC is generally installed from within a building. It is not designed to withstand prolonged exposure to weather and should not be stored outside.

### Corrosion

Under normal use in commercial conditions, SILVERBATTS™ TLC is not subject to significant degradation except in the immediate coastal vicinity, where external upward facing foil can be corroded by salt. However, corrosion has minimal affect on thermal performance, as the thermal properties depend primarily on the downward facing surfaces. The foil coating on SILVERBATTS™ TLC can also be corroded if exposed to substances which are alkaline or acidic.

### Dust Accumulation

SILVERBATTS™ TLC systems installed horizontally and exposed to dust accumulation may have reduced reflectivity of up to 50% over time. Initial performance will therefore generally be higher than stated performance.

### Fire Performance

The Building Code of Australia calls for fire performance to be tested under AS/NZS 1530.3: 1999, *Methods for fire tests on building materials, components and structures*. When tested under this standard by the Building Research Association of New Zealand, SILVERBATTS™ TLC returned a four-zero rating, the best possible.

## Electrical

Ametalin stresses the importance of safe installation practices for foil-based insulation as critical to installer and consumer safety. Aluminium Foil Insulation Association Inc. (AFIA) has prepared Work Method Statements and Hazard Management forms to assist contractors and installers in safe installation of reflective insulation products. These documents are available under 2009 AFIA WMS & Hazard Management, at [www.afia.com.au/news/health-and-safety/](http://www.afia.com.au/news/health-and-safety/).

Unlike bulk insulation, which can contain heat around wiring, electrical equipment and heating flues, SILVERBATTS™ TLC does not create a fire hazard. This means that standard grades of wiring can be used around SILVERBATTS™ TLC, rather than the heavier grade wiring required for bulk insulation. SILVERBATTS™ TLC, like all foil insulation, is specifically excluded from AS/NZS 3008.1:2009, clause 3.4.3, which covers the de-rating of wiring used in conjunction with bulk insulation. Single insulated conductors such as switches and sockets should be treated in accordance with AS/NZS 3000:2007, clause 5.7.3.7, e.g. by clipping wiring together with a cable tie. Shrouds are not required.

## Dimensions

SILVERBATTS™ TLC is sold in size:  
450 mm x 1200 mm x 50 mm

## Specification Notes

When specifying, state the following:

**Product Name:** Trade Select™ SILVERBATTS™ TLC

The insulation to be installed shall be Trade Select™ SILVERBATTS™ Triple Layer Commercial multi-layer expandable reflective insulation, emittance bright side 0.03. Product is manufactured by Ametalin.

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AUSTRALIAN DESIGNED, AUSTRALIAN OWNED.

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