

PLEATED SILVER**BATTS**™

INSTALLATION GUIDE



ametalin

A division of Amalgamated Metal Industries Pty Ltd

PLEATED SILVERBATTSTM

Installation Instructions

Thermal Performance

Thermal insulation evaluation by calculation for a typical system with Ametalin products:

TYPICAL BRICK VENEER	WINTER	SUMMER
2 PLEATED SILVERBATTSTM	R2.9	R2.8
2 PLEATED SILVERBATTSTM + SILVERSARK-xR	R3.9	R3.4
2 PLEATED SILVERBATTSTM + SILVERSARK	R3.4	R3.3

TYPICAL LIGHTWEIGHT CLADDING DIRECT TO STUD

2 PLEATED SILVERBATTSTM	R3.0	R2.9
2 PLEATED SILVERBATTSTM + SILVERSARK-xR	R3.9	R3.4
2 PLEATED SILVERBATTSTM + SILVERSARK	R3.4	R3.3

The R-values shown are Total R-values for the building element as required by the Energy Provisions of the Building Code of Australia. Ametalin products are manufactured, tested and packaged in conformance with AS/NZS 4859.1. The contribution of the product Total R-values depends on installation and environmental conditions.

Installation instructions for PLEATED SILVERBATTSTM in walls

Selecting the right SilverBatts

In walls, PLEATED SILVERBATTSTM are stapled between studs, leaving a 30mm to 40mm gap between the Silver Batt and plasterboard.

PLEATED SILVERBATTSTM are available in two different widths to suit the needs of your stud spacings as detailed in the table below.

Selecting the correct dimensions to be used in a project will minimise installation time and materials wastage whilst ensuring optimum insulation performance.

size mm	units per pack	sq m
450x1200 (PB-4501200)	16	9
600x1200 (PB-6001200)	16	12

General Instructions

- ▶ Place PLEATED SILVERBATTSTM on floor notch at height of nogging. Gather pleats together, cut to size with a knife or scissors. (Figure 4).
- ▶ Position PLEATED SILVERBATTSTM in centre of stud space with the stapling flange facing inwards. (Figure 5).
- ▶ Staple to stud. (Figure 6).
- ▶ Pull across stud space and staple to opposite stud. (Figure 6).
- ▶ Use same method to install PLEATED SILVERBATTSTM against nogging.

Hint: Avoid cutting too snugly, as this may result in distortion of the PLEATED SILVERBATTSTM when extended.

Long/narrow stud spaces

For stud spaces that are slightly narrower than usual, simply use a PLEATED SILVERBATTSTM not quite fully expanded. When very narrow stud spaces occur, cut SILVERBATTSTM length wise.

If there is no nogging, PLEATED SILVERBATTSTM can be overlapped.

Typical Design Applications

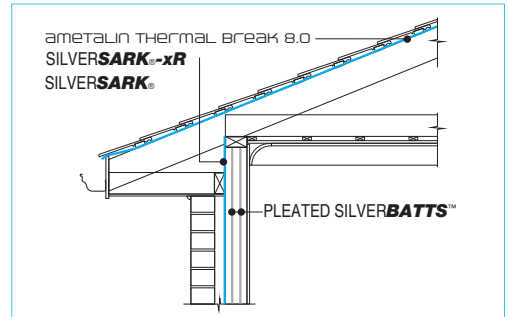


Figure 1 Typical residential 22° pitched tiled roof, flat ceiling, typical brick veneer, one layer of Ametalin product and two layers of PLEATED SILVERBATTSTM.

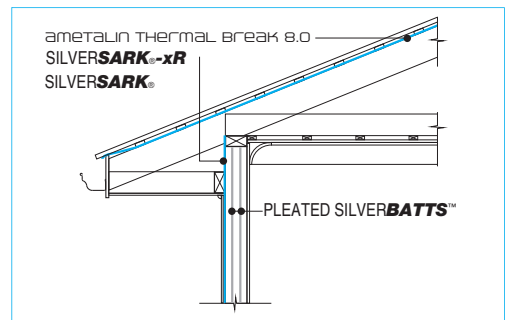


Figure 2 Typical residential 22° pitched metal roof, flat ceiling, one layer of Ametalin product and two layers of PLEATED SILVERBATTSTM.

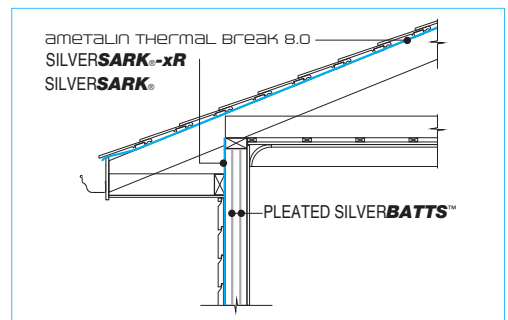
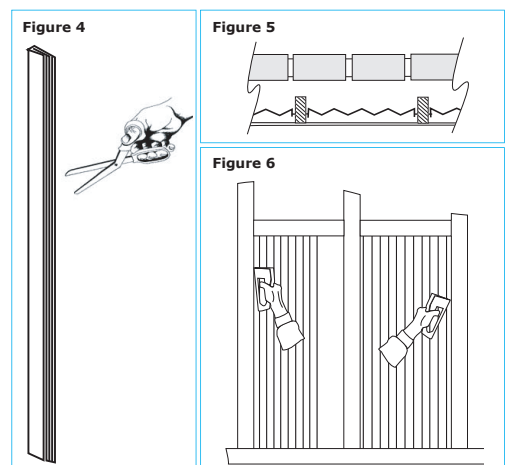


Figure 3 Typical residential 22° pitched tiled roof, flat ceiling with one layer of Ametalin product and two layers of PLEATED SILVERBATTSTM.



Sloping plates or noggings

Where top plate or nogging is sloping, use short PLEATED SILVERBATT™ against sloping member.

Cutting around pipes etc

Where pipes, wires or other services are encountered, first cut a slot into the PLEATED SILVERBATT™ at the level of the pipe, then cut a cross with the centre at the point where the pipe protrudes. Fold back the flaps formed by the cross sufficiently to allow the SILVERBATT™ to be fitted around the pipe. (Figure 7)

R-values

PLEATED SILVERBATTS™ may be used in any frame construction, including brick veneer and weatherboard systems. The thermal resistance of a wall system incorporating PLEATED SILVERBATTS™ ranges from R1.7 to R3.3.

Total System R-values for in situ conditions have been calculated by James Fricker, a leading independent engineering consultant, (in accordance to AS/NZS 4859.1) based on experimental data delivered from extensive field research.

Gaps

According to experiments by the Building Research Association of New Zealand (BRANZ), the performance of insulation systems in a vertical position can be significantly impaired if there are more than two gaps over 1mm in the insulation, allowing a convection cell to be formed.

A single small gap is not significant in a sealed wall system as it will not allow the formation of a convection cell.

If more than two gaps are created in a single cavity, at least one of them must be suitably sealed (eg. using duct tape).

Fire Resistance

When tested under Australian Standard AS1530.3 Early Fire Hazard Test, PLEATED SILVERBATTS™ returned a four-zero rating, the best possible result.

Acoustic Properties

Calculations by acoustical consultants show that the sound isolation against traffic noise of a typical brick veneer home insulated with Silver Batts is equal to that of the same home insulated with fibrous insulation.

Our Company

Ametalin specialises in applying the principles of reflective insulation to develop building insulation systems for the range of climatic conditions typical of Australia and much of Asia.

All our insulation systems meet the following criteria:

- ▶ Safe to work with and to live with
- ▶ Superior performance
- ▶ Easy fit into existing building process
- ▶ Time saving
- ▶ Cost saving

We provide insulation systems for a wide range of situations. If we don't already have a system to meet your particular need, we may be able to develop one.

Ametalin is a member of the Australian Foil Insulation Association (AFIA) and adheres to AFIA's code of practice.

If further technical assistance or information is required, please contact us at

Ametalin
 Tel +61 8 8347 0941
 Fax +61 8 8347 0915
 Email info@ametalin.com

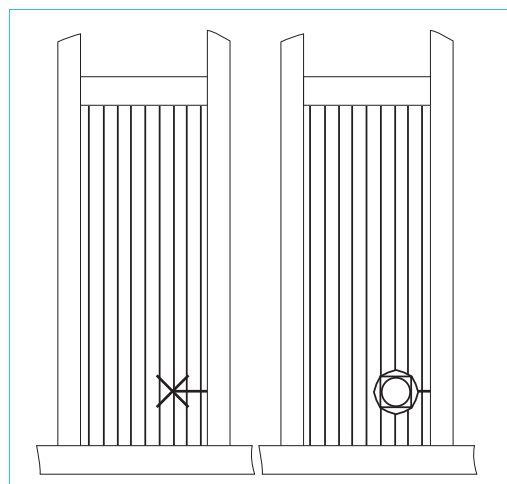


Figure 7 Where pipes, wires or services are encountered, first cut a slot into the PLEATED SILVERBATT™ at the level of the pipe, then cut a cross with the centre at the point where the pipe protrudes. Fold back the flaps formed by the cross sufficiently to allow the PLEATED SILVERBATT™ to be fitted around the pipe.



Ametalin's range of reflective expandable insulation and pliable building membranes provide an excellent barrier to radiant heat, enhancing the energy performance and thermal comfort of a building.