



# FOILBOARD<sup>®</sup>

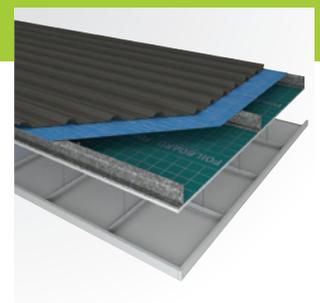
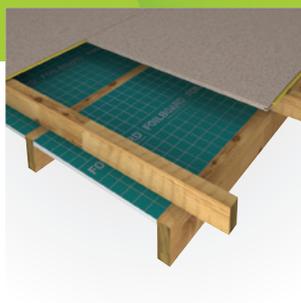
INSULATION SYSTEMS

It's the smarter way to insulate

- ✓ Commercial
- ✓ Industrial
- ✓ Residential

## Foilboard<sup>®</sup> GREEN

Information and Design Guide



RIGID INSULATION PANEL FOR FLOORS, WALLS AND CEILINGS.  
**Standards Australia Certified Product**



**Foilboard® GREEN** rigid insulation panel is proudly available nationwide through a network of insulation providers, hardware & timber merchants, wholesale stockists and distributors.

PERTH

ADELAIDE

BRISBANE

SYDNEY

MELBOURNE



It's the rigid insulation panel for under your floors, in your walls, in your roof and even to line your man-caves & sheds.

Manufactured in Australia from a fire retardant expanded polystyrene core (FR-EPS) with pure aluminium foil directly laminated to both sides, creating a SUPERIOR INSULANT, THERMAL BREAK and NON-PERMEABLE MOISTURE BARRIER.

Foilboard® GREEN has been engineered and designed to ensure a quick and easy installation of a non-itchy, fibre free rigid insulation panel that will provide continuous thermal performance for the life of the building.



It's the smarter way to insulate.

## Contents

The Foilboard® Difference	4
Applications - Commercial	5
Applications - Residential	7
Foilboard® Design Service	9
Technical Data	10
Foilboard® and the Environment	11



Anywhere batts can go, Foilboard® goes better

# The Foilboard® Difference

Foilboard® Australia backs its Foilboard® GREEN with a 25 year performance guarantee.

Fully endorsed by Standards Australia, the Foilboard® GREEN rigid insulation panel is the premium insulation product in its market, both in manufactured quality and product performance and that is why it is backed by a 25 year performance guarantee.

This durable rigid panel is specifically designed to achieve exceptionally high thermal values, making it the ideal product. Unlike traditional bulk insulation and blankets, Foilboard® GREEN rigid panel will not shrink, sag or droop, ensuring that the building performs to its optimal thermal value from day one, to year 25 and beyond.



## Foilboard® GREEN performance Guarantee\*

- ✓ Will maintain the same thermal performance (R value) for the life of panel.
- ✓ Will not sag
- ✓ Will not delaminate



➔ **Did you know** a 4% void in insulated BATTs as a result of sagging, improper installation or stapling can increased heat loss by 15-50%\*\*

\*Foilboard® guarantee is only applicable when product is installed in accordance to manufacturer installation guide  
\*\*Information provided is independently sourced from the (ASHRAE) Fundamentals Handbook

# Applications

 Want to find a supplier of Foilboard® products?

[www.foilboard.com.au/storelocator](http://www.foilboard.com.au/storelocator)

 Want to find the right product for your application?

[www.foilboard.com.au/productselector](http://www.foilboard.com.au/productselector)

## Commercial Applications

### Comm 1

#### Brick / Concrete Wall Lining ( Single Reflective Airspace)



	'R' Values	
	Heat Flow Out	Heat Flow In
Green 40	R2.4 <sub>t</sub>	R2.2 <sub>t</sub>
Green 25	R1.9 <sub>t</sub>	R1.8 <sub>t</sub>
Green 20	R1.8 <sub>t</sub>	R1.6 <sub>t</sub>
Green 15	R1.7 <sub>t</sub>	R1.5 <sub>t</sub>
Green 10	R1.5 <sub>t</sub>	R1.4 <sub>t</sub>

By incorporating Foilboard® GREEN rigid insulation panel into a standard 150mm concrete precast system, you can dramatically increase the thermal performance of the wall from an R0.3<sub>t</sub> to R2.4<sub>t</sub>

### Comm 2

#### Brick / Concrete Wall Lining ( Dual Reflective Airspace)

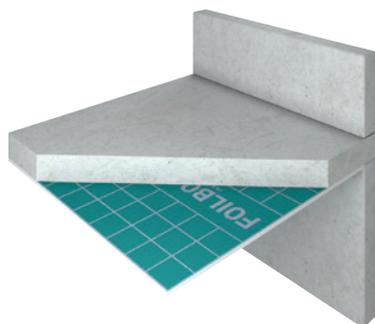


	'R' Values	
	Heat Flow Out	Heat Flow In
Green 40	R2.8 <sub>t</sub>	R2.6 <sub>t</sub>
Green 20	R2.2 <sub>t</sub>	R2.0 <sub>t</sub>
Green 15	R2.1 <sub>t</sub>	R1.9 <sub>t</sub>
Green 10	R2.0 <sub>t</sub>	R1.8 <sub>t</sub>

Foilboard® Insulation Panel will not sag and leave uninsulated pockets that can reduce R Values. Installed correctly, the full 'R' value will last the life of the building. Once fixed in place, it will maintain complete coverage around the building and as it covers the frame, there can be no loss of effectiveness via thermal bridging through the frame.

### Comm 3

#### Suspended Slab Insulation – Direct Fixing (non-trafficable areas)



	'R' Values	
	Heat Flow Out	Heat Flow In
Green 50	R3.4 <sub>t</sub>	R2.7 <sub>t</sub>
Green 40	R3.2 <sub>t</sub>	R2.5 <sub>t</sub>
Green 25	R2.7 <sub>t</sub>	R2.0 <sub>t</sub>
Green 20	R2.6 <sub>t</sub>	R1.9 <sub>t</sub>

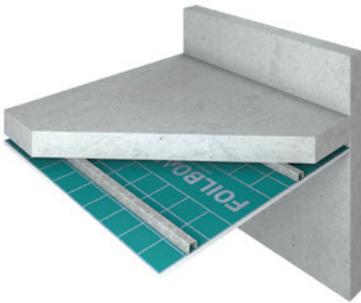
Directly fixing Foilboard® GREEN rigid panel under concrete floors creates a thermal barrier ensuring considerable energy savings and allows for rapid installation of the product.

R<sub>t</sub> - R-values displayed are "total system R-values", as required by the Energy Provisions of the Building Code of Australia. Calculation is based on the use of the Foilboard® GREEN rigid insulation panel only. Under no circumstances can this calculation be used in conjunction with any alternative product, as results will vary.



## Comm 4

## Suspended Slab Insulation – Batten Fixing (non-trafficable areas)



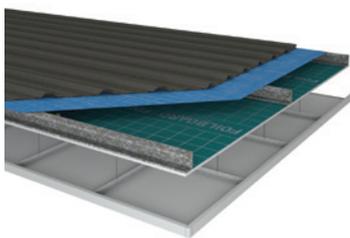
## 'R' Values

	Heat Flow Out	Heat Flow In
Green 50	R4.1 <sub>t</sub>	R2.9 <sub>t</sub>
Green 40	R3.9 <sub>t</sub>	R2.6 <sub>t</sub>
Green 25	R3.4 <sub>t</sub>	R2.2 <sub>t</sub>
Green 20	R3.3 <sub>t</sub>	R2.1 <sub>t</sub>

Fixing Foilboard® GREEN rigid panel via a batten framework to the underside of a concrete floor aids in additionally boosting the thermal value through the creation and utilisation of the reflective airspace between the Foilboard® GREEN panel and soffit above.

## Comm 5

## Suspended Ceiling Insulation



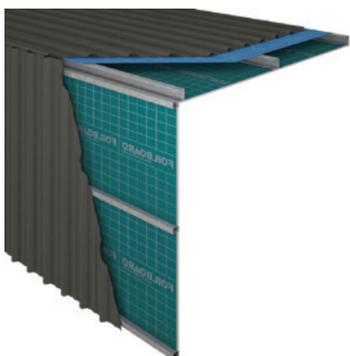
## 'R' Values

	Heat Flow Out	Heat Flow In
Green 25	R2.4 <sub>t</sub>	R5.9 <sub>t</sub>
Green 20	R2.3 <sub>t</sub>	R5.8 <sub>t</sub>
Green 15	R2.2 <sub>t</sub>	R5.6 <sub>t</sub>

Incorporating Foilboard® GREEN into a suspended ceiling increases the thermal performance of the roof structure and with its slimline design, it can fit in almost any cavity size. The versatility of the panel also means that the product can be fixed at varying heights, ensuring maximum effectiveness.

## Comm 6

## Commercial Purlin Fix, Shed &amp; Garages - Vertical and Raked



## 'R' Values

		Heat Flow Out	Heat Flow In
Raked-roofing	Green 25	R1.7 <sub>t</sub>	R3.9 <sub>t</sub>
	Green 20	R1.6 <sub>t</sub>	R3.7 <sub>t</sub>
	Green 15	R1.5 <sub>t</sub>	R3.6 <sub>t</sub>
Vertical-wall	Green 20	R1.9 <sub>t</sub>	R1.9 <sub>t</sub>
	Green 15	R1.8 <sub>t</sub>	R1.8 <sub>t</sub>

Ideally used in the lining of factories, sheds and alike, the Foilboard® panel is quickly and easily installed through the use of Foilboard® fasteners and accessories.



## Standards Australia Certified Product

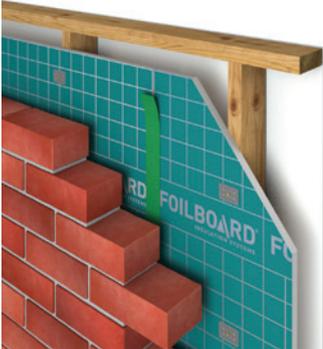


R<sub>t</sub> - R-values displayed are "total system R-values", as required by the Energy Provisions of the Building Code of Australia. Calculation is based on the use of the Foilboard® GREEN rigid insulation panel only. Under no circumstances can this calculation be used in conjunction with any alternative product, as results will vary.

## Residential Applications

### Resi 1

#### Brick Veneer Lining – (timber / steel frame)



'R' Values		
	Heat Flow Out	Heat Flow In
Green 25	R2.7 <sub>t</sub>	R2.4 <sub>t</sub>
Green 20	R2.5 <sub>t</sub>	R2.3 <sub>t</sub>
Green 15	R2.4 <sub>t</sub>	R2.1 <sub>t</sub>
Green 10	R2.3 <sub>t</sub>	R2.0 <sub>t</sub>

By fixing the Foilboard® GREEN rigid panel to the exterior of the studwork, you can ensure a continuity of thermal value, creating an “esky” effect around the home. With the added benefit of achieving “lock-up” stage sooner, allowing for a quicker build time.

### Resi 2

#### External Cladding – (timber / steel frame)



'R' Values		
	Heat Flow Out	Heat Flow In
Green 25	R2.5 <sub>t</sub>	R2.2 <sub>t</sub>
Green 20	R2.3 <sub>t</sub>	R2.1 <sub>t</sub>
Green 15	R2.2 <sub>t</sub>	R2.0 <sub>t</sub>
Green 10	R2.1 <sub>t</sub>	R1.8 <sub>t</sub>

By fixing the Foilboard® GREEN rigid panel to the exterior of the studwork, you can ensure a continuity of thermal value, creating an “esky” effect around the home. With the added benefit of achieving “lock-up” stage sooner, allowing for a quicker build time.

### Resi 3

#### Double Brick Cavity Insulation



'R' Values		
	Heat Flow Out	Heat Flow In
Green 20	R2.0 <sub>t</sub>	R1.9 <sub>t</sub>
Green 15	R1.9 <sub>t</sub>	R1.8 <sub>t</sub>
Green 10	R1.8 <sub>t</sub>	R1.6 <sub>t</sub>

Designed to fit within the standard space of the double brick cavity, Foilboard® GREEN rigid panel optimises the airspace within the structure without the need to re-engineer or redesign the cavity wall system.

## Superior Thermal Performance

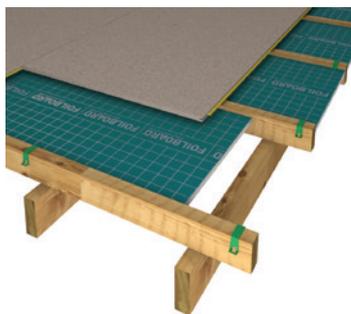


R<sub>t</sub> - R-values displayed are “total system R-values”, as required by the Energy Provisions of the Building Code of Australia. Calculation is based on the use of the Foilboard® GREEN rigid insulation panel only. Under no circumstances can this calculation be used in conjunction with any alternative product, as results will vary.



## Resi 4

## Underfloor Insulation – New Build



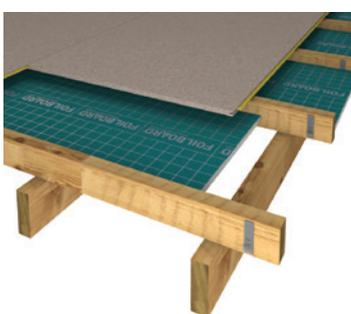
## 'R' Values

	Heat Flow Out	Heat Flow In
Green 15	R3.3 <sub>t</sub>	R2.0 <sub>t</sub>
Green 10	R3.1 <sub>t</sub>	R1.9 <sub>t</sub>

Through the utilisation of the Foilboard® Floor Saddles, Foilboard® GREEN rigid panel can be installed quickly and easily into the sub-floor before laying timber / particle board flooring.

## Resi 5

## Underfloor Insulation – Flexifit



## 'R' Values

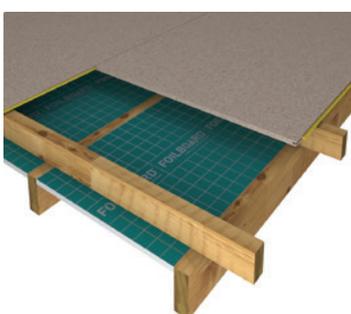
	Heat Flow Out	Heat Flow In
Green 20	R3.7 <sub>t</sub>	R2.1 <sub>t</sub>
Green 15	R3.6 <sub>t</sub>	R2.0 <sub>t</sub>
Green 10	R3.4 <sub>t</sub>	R1.8 <sub>t</sub>

With the use of the Foilboard® Flexi-fast fastener, Foilboard® GREEN rigid panel is perfect for retrofitting to existing flooring systems.

Foilboard® GREEN is light weight, easy to cut and manoeuvre into place, making it the perfect underfloor insulation.

## Resi 6

## Underfloor Insulation – Retrofit



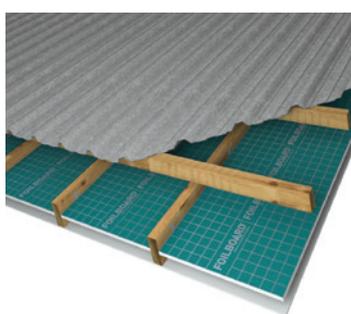
## 'R' Values

	Heat Flow Out	Heat Flow In
Green 25	R4.3 <sub>t</sub>	R2.2 <sub>t</sub>
Green 20	R4.1 <sub>t</sub>	R2.1 <sub>t</sub>
Green 15	R4.0 <sub>t</sub>	R2.0 <sub>t</sub>
Green 10	R3.9 <sub>t</sub>	R1.9 <sub>t</sub>

For larger sub-floor areas, the Foilboard® GREEN rigid panel can be fixed directly to the underside of the joist, giving the maximum thermal benefit.

## Resi 7

## Skillion / Cathedral Roof Insulation



## 'R' Values

	Heat Flow Out	Heat Flow In
Green 25	R2.4 <sub>t</sub>	R3.3 <sub>t</sub>
Green 20	R2.2 <sub>t</sub>	R3.1 <sub>t</sub>

Where space is of a premium, Foilboard® GREEN rigid panel works perfectly within skillion and cathedral roof spaces.



R<sub>t</sub> - R-values displayed are "total system R-values", as required by the Energy Provisions of the Building Code of Australia. Calculation is based on the use of the Foilboard® GREEN rigid insulation panel only. Under no circumstances can this calculation be used in conjunction with any alternative product, as results will vary.

# A better product improves your performance

Unlike traditional bulk insulation and insulated batts, Foilboard® GREEN's slimline profile makes for an ideal thermal break & vapour barrier, and with its superior thermal performance, it ensures a continuous "eskie" effect to the building year round.

## Slimline Design

### Foilboard® GREEN

- ✓ Endorsed by STANDARDS AUSTRALIA
- ✓ BCA Compliant
- ✓ Fire retardant
- ✓ Does not require the use of protective clothing or safety gear whilst installing
- ✓ Formaldehyde free
- ✓ CFC & HCFC free
- ✓ Has Zero Volatile Organic Compounds (VOC's)
- ✓ Has no harmful carcinogens
- ✓ No dangerous fibrous airborne particles
- ✓ Achieves high R-values without the need for reengineering the building's design
- ✓ Installed without gaps
- ✓ Lightweight and fast to install
- ✓ Impervious to moisture
- ✓ 100% Australia made
- ✓ 100% Australia owned

## FOILBOARD® DESIGN AND TECHNICAL SERVICE



Having an unrivalled technical department, Foilboard® Insulation Systems offers this valuable resource to aid in the design and construction stages of every project. From the largest city towers, to the humble renovation or D.I.Y. project.

Foilboard® Australia provides:

- ✓ DESIGN ASSISTANCE
- ✓ INSTALLATION GUIDANCE
- ✓ TECHNICAL DATA
- ✓ THERMAL CALCULATIONS

Ensuring the optimal performance of the Foilboard® GREEN Rigid Panel.

Foilboard® Australia is the only manufacturer in the industry to supply fully certified thermal calculations to support the product within the specific application.

# Technical Data

## Commercial Applications

System	Application	Foilboard® Product	Heat Flow Out	Heat Flow In
Comm 1	Precast Concrete / Brick Wall Lining (SINGLE Reflective Airspace)	Foilboard® GREEN 40	R2.4	R2.2
		Foilboard® GREEN 25	R1.9	R1.8
		Foilboard® GREEN 20	R1.8	R1.6
		Foilboard® GREEN 15	R1.7	R1.5
		Foilboard® GREEN 10	R1.5	R1.4
Comm 2	Precast Concrete / Brick Wall Lining (DUAL Reflective Airspace)	Foilboard® GREEN 40	R2.8	R2.6
		Foilboard® GREEN 20	R2.2	R2.0
		Foilboard® GREEN 15	R2.1	R1.9
		Foilboard® GREEN 10	R2.0	R1.8
Comm 3	Suspended Slab Insulation - Direct Fix (non-trafficable areas)	Foilboard® GREEN 50	R3.4	R2.7
		Foilboard® GREEN 40	R3.2	R2.5
		Foilboard® GREEN 25	R2.7	R2.0
		Foilboard® GREEN 20	R2.6	R1.9
Comm 4	Suspended Slab Insulation - Batten Fixing (non-trafficable areas)	Foilboard® GREEN 50	R4.1	R2.9
		Foilboard® GREEN 40	R3.9	R2.6
		Foilboard® GREEN 25	R3.4	R2.2
		Foilboard® GREEN 20	R3.3	R2.1
Comm 5	Suspended Ceiling Insulation	Foilboard® GREEN 25	R2.4	R5.9
		Foilboard® GREEN 20	R2.3	R5.8
		Foilboard® GREEN 15	R2.2	R5.6
Comm 6	Commercial Purlin Fix, Shed & Garages Raked-roofing	Foilboard® GREEN 25	R1.7	R3.9
		Foilboard® GREEN 20	R1.6	R3.7
		Foilboard® GREEN 15	R1.5	R3.6
	Commercial Purlin Fix, Shed & Garages Vertical-wall	Foilboard® GREEN 20	R1.9	R1.9
Foilboard® GREEN 15	R1.8	R1.8		

## Residential Applications

System	Application	Foilboard® Product	Heat Flow Out	Heat Flow In
Resi 1	Brick Veneer Lining	Foilboard® GREEN 25	R2.7	R2.4
		Foilboard® GREEN 20	R2.5	R2.3
		Foilboard® GREEN 15	R2.4	R2.1
		Foilboard® GREEN 10	R2.3	R2.0
Resi 2	External Cladding	Foilboard® GREEN 25	R2.5	R2.2
		Foilboard® GREEN 20	R2.3	R2.1
		Foilboard® GREEN 15	R2.2	R2.0
		Foilboard® GREEN 10	R2.1	R1.8
Resi 3	Double Brick Cavity	Foilboard® GREEN 20	R2.0	R1.9
		Foilboard® GREEN 15	R1.9	R1.8
		Foilboard® GREEN 10	R1.8	R1.6
Resi 4	Underfloor Insulation - New Build	Foilboard® GREEN 15	R3.3	R2.0
		Foilboard® GREEN 10	R3.1	R1.9
Resi 5	Underfloor Insulation - Flexifit	Foilboard® GREEN 20	R3.7	R2.1
		Foilboard® GREEN 15	R3.6	R2.0
		Foilboard® GREEN 10	R3.4	R1.8
Resi 6	Underfloor Insulation - Retrofit	Foilboard® GREEN 25	R4.3	R2.2
		Foilboard® GREEN 20	R4.1	R2.1
		Foilboard® GREEN 15	R4.0	R2.0
		Foilboard® GREEN 10	R3.9	R1.9
Resi 7	Skillion Roofing / Cathedral Roofing Insulation	Foilboard® GREEN 25	R2.4	R3.3
		Foilboard® GREEN 20	R2.2	R3.1

- ✓ ZERO ozone depleting substances (CFC & HCFC Free)
- ✓ ZERO Volatile Organic Compounds (VOC's)
- ✓ Vapour Transmission rate - Nil
- ✓ Emittance is E0.03
- ✓ Reflectivity is 97% (reflective face)

## Foilboard® GREEN Tests

Thermal Performance	AS/NZS 4859.1
Corrosion Resistance	AS/NZS 4859.1 a1
Thermal Resistance	ASTM-C 518
Emittance	ASTM-E 408-71
Ignitability	AS 1503.3
Flame Spread	AS 1503.3
Heat Evolution	AS 1503.3
Smoke Development	AS 1503.3
Rigid Cellular Substrate	AS 1366.3
Nominal Density	AS 1366.3
Cone Calorimeter	AS/NZS 3837
Vapour Transmission	AS 2498.5
Dry Delamination	AS/NZS 42101.1 m1
Wet Delamination	AS/NZS 42101.1 m2
Shrinkage	AS/NZS 42101.1 m3
Wet Barrier	AS/NZS 4201.4



# Foilboard® and the Environment

Designed with sustainability in mind, Foilboard® Insulation Panel will last the life of the building. It is one of very few products on the market that creates a true thermal break, meaning the long term benefits of Foilboard® Insulation Panel far outweigh any other insulation material. The material's ability to create a more consistent ambient temperature means you are not reliant on inefficient artificial heating and cooling. This reduces energy use and the production of greenhouse gases creating a more sustainable future for all and saves you money.

There are no Volatile Organic Compounds (VOC's), nor are any CFC's used in the manufacture of the Expanded Polystyrene (EPS). The pure aluminium that is directly laminated to both sides of the Foilboard® Insulation Panel is also 100% recyclable.

Foilboard® GREEN rigid insulation panel ensures optimum performance by creating a thermal barrier around your building or home – reducing your energy consumption costs and carbon footprint making for a healthier, greener environment.

Designed, tested and manufactured in Australia for over 25 years, Foilboard® GREEN rigid insulation panel was the first panel of its kind in the Australian market.



- ✓ BCA Compliant
- ✓ Environmentally Safe
- ✓ No harmful “itchy” fibres
- ✓ Fire Retardant Rigid Panel
- ✓ Excellent acoustic properties
- ✓ Lightweight & durable

# FOILBOARD®

INSULATION SYSTEMS

It's the smarter way to insulate

[www.foilboard.com.au](http://www.foilboard.com.au)

For all enquiries, please call 1800 354 717

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National Head Office

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Phone: 03 5943 7000  
Email: [foilboard@foilboard.com.au](mailto:foilboard@foilboard.com.au)

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[foilboard.com.au/storelocator](http://foilboard.com.au/storelocator)

 **Product Selector:**

[foilboard.com.au/productselector](http://foilboard.com.au/productselector)

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## FOILBOARD® STATE BRANCHES:

### QUEENSLAND

4 / 14 Buttonwood Place  
Willawong, QLD 4110  
Phone: 07 3273 2000

### NEW SOUTH WALES

3/9 Meadow Way  
Banksmeadow (Botany),  
NSW 2019  
Phone: 02 9316 5111

### SOUTH AUSTRALIA

Green Energy Insulation  
963 Port Road,  
Cheltenham, SA 5014  
Phone: 08 8363 0078

### WESTERN AUSTRALIA

Insul Fibre Insulation  
Unit 4 / 37 Berriman Dve,  
Wangara, WA 6065,  
Phone: 08 9309 4955