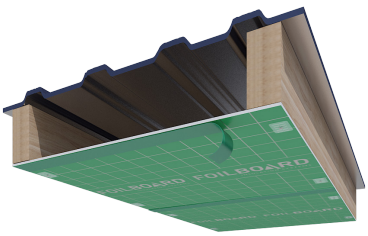
FOILBOARD®
INSULATION SYSTEMS

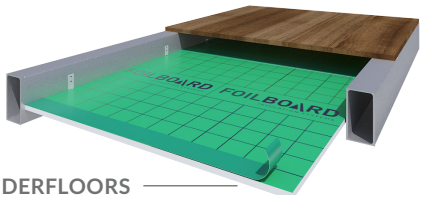
FOILBOARD® GREEN

Information & Design Guide

WALLS



ROOFS



UNDERFLOORS

Certified to
Australian Standards

AUSTRALIAN MADE
AND OWNED

www.foilboard.com.au

FOILBOARD®
INSULATION SYSTEMS

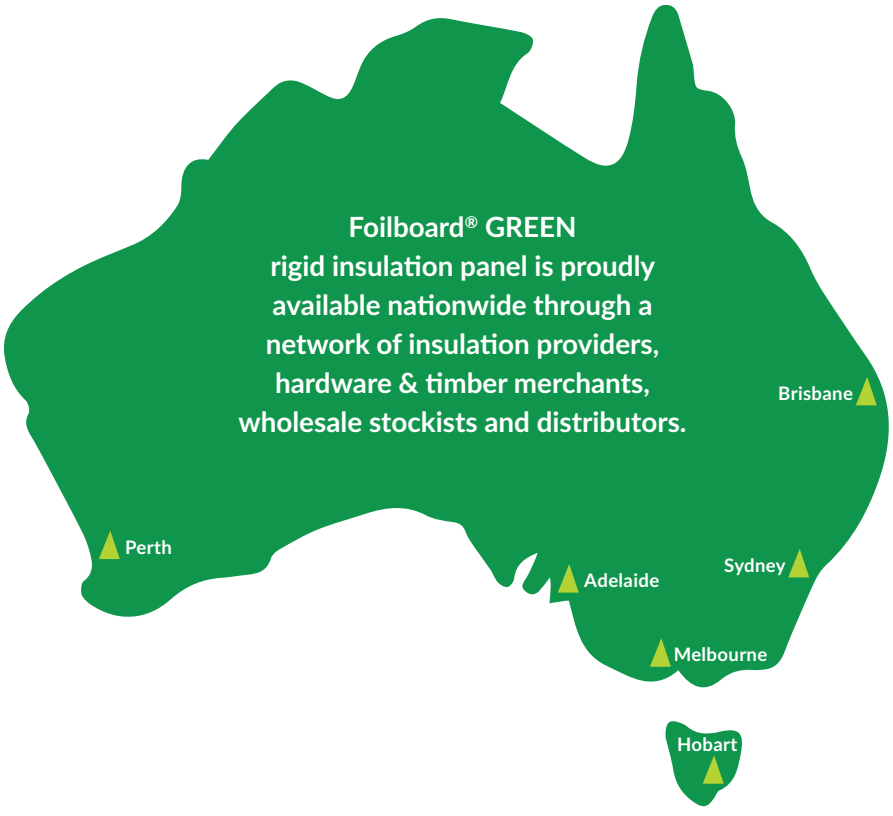
THE SMARTER WAY TO INSULATE

Australia's most versatile rigid insulation panels for sheds, underfloors, roofs, walls and more.

Foilboard is a leading insulation manufacturer and supplier of energy saving, sustainable building insulation products.

Foilboard panels achieve high thermal resistance, reduce airflow and increases energy savings.

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.



NEED AN R VALUE?
Email your project details to technical@foilboard.com.au

CONTENTS

Foilboard GREEN

- Fire retardant
- Formaldehyde free
- CFC & HCFC free
- No dangerous fibrous airborne particles
- Installed without thermal bridging
- Lightweight and fast to install
- Impervious to moisture
- 100% Australian Made

The Foilboard Difference

Foilboard GREEN Performance Guarantee*

- Will maintain the same thermal performance (R value) for the life of panel
- Will not sag
- Will not delaminate
- Impervious to moisture

Foilboard GREEN is backed with a 25 year performance guarantee*

Manufactured to Australian Standards, the Foilboard GREEN 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 with the use of the reflective airspaces, making it the ideal product.

Unlike traditional bulk insulation and blankets, Foilboard GREEN insulation panel will not shrink, sag or droop, ensuring that the building performs to its optimal thermal performance, from 1 year to 25 years and beyond.

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

*Foilboard® guarantee is only applicable when product is installed in accordance with the Foilboard® warranty policy.
**Information provided is independently sourced from the (ASHRAE) Fundamentals Handbook.

FOILBOARD INSULATION SYSTEMS

Application - Walls

SYSTEM R VALUES

Concrete Wall - Single Reflective Airspace

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 50	Rt2.2	Rt2.0	R1.9	R1.8
GREEN 40	Rt2.0	Rt1.9	R1.7	R1.6
GREEN 30	Rt1.7	Rt1.7	R1.5	R1.4
GREEN 25	Rt1.6	Rt1.6	R1.4	R1.3
GREEN 20	Rt1.5	Rt1.5	R1.2	R1.2

System Description: 150mm concrete (k=1.44), steel furring channel, 28mm x 38mm x 0.55 BMT at 600mm c/c, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Concrete Wall - Dual Reflective Airspace

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 50	Rt2.8	Rt2.7	R2.5	R2.4
GREEN 40	Rt2.6	Rt2.5	R2.3	R2.2
GREEN 30	Rt2.3	Rt2.3	R2.0	R2.0
GREEN 25	Rt2.2	Rt2.2	R2.0	R1.9
GREEN 10	Rt1.8	Rt1.8	R1.6	R1.5

System Description: 150mm concrete (k=1.44), 20mm spacer blocks, steel furring channel. 28mm x 38mm x 0.55 BMT at 600mm c/c, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Double Brick Cavity Walls

FOILBOARD PANEL	CAVITY WIDTH	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 50	90mm	Rt2.9	Rt2.8	R2.5	R2.4
GREEN 30	70mm	Rt2.5	Rt2.4	R2.1	R2.0
GREEN 20	60mm	Rt2.3	Rt2.2	R1.8	R1.8
GREEN 15	50mm	Rt2.0	Rt1.9	R1.6	R1.5
GREEN 10	50mm	Rt1.7	Rt1.7	R1.3	R1.3

System Description GREEN 50 - 15: 110mm brickwork (k=0.78), Foilboard panel placed center of cavity. Reflective airspace each side of the Foilboard, 110mm brickwork (k=0.78).

System Description GREEN 10: 110mm brickwork (k=0.78), 35mm reflective airspace, 10mm Foilboard panel, 5mm reflective airspace, 10mm brickwork (k=0.78). Calculated per AS/NZS 4859, Part 1&2 2:2018.

Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD INSULATION SYSTEMS

Application - Walls

SYSTEM R VALUES

Brick Veneer

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSUALTION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 50	Rt2.9	Rt2.8	R2.5	R2.4
GREEN 30	Rt2.4	Rt2.4	R2.0	R2.0
GREEN 20	Rt2.2	Rt2.1	R1.8	R1.8
GREEN 15	Rt2.1	Rt2.0	R1.7	R1.6
GREEN 10	Rt2.0	Rt1.9	R1.6	R1.5

System Description: 110mm brickwork (k=0.78), > 20mm reflective airspace, Foilboard panel, 90mm x 35mm timber frame, 600mm stud spacing, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Cladded Walls

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 50	Rt2.8	Rt2.7	R2.5	R2.4
GREEN 30	Rt2.3	Rt2.2	R2.0	R2.0
GREEN 20	Rt2.1	Rt2.0	R1.8	R1.7
GREEN 15	Rt2.0	Rt1.9	R1.7	R1.6
GREEN 10	Rt1.8	Rt1.8	R1.6	R1.5

System Description: 9mm fibre cement cladding (k=0.04), 19mm reflective airspace, 19mm x 35mm softwood batten, Foilboard panel, 90mm x 35mm timber frame, 600mm stud spacing, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Higher R Value Systems

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 25	Rt4.5	Rt4.3	R4.7	R4.4
GREEN 20	Rt4.4	Rt4.2	R4.6	R4.4
GREEN 15	Rt4.2	Rt4.1	R4.4	R4.2
GREEN 10	Rt4.1	Rt3.9	R4.3	R4.1

System Description: 9mm fibre cement cladding (k=0.04), 19mm reflective airspace, Foilboard, 19mm x 35mm softwood batten, non-reflective wall wrap, 90mm x 35mm timber frame, 600mm stud spacing, 90mm R2.7 glass wool batt insulation, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

FOILBOARD PANEL	HEAT FLOW OUT WINTER	HEAT FLOW IN SUMMER	ADDED INSULATION R VALUE (WINTER)	ADDED INSULATION R VALUE (SUMMER)
GREEN 25	Rt4.7	Rt4.5	R4.7	R4.5
GREEN 20	Rt4.6	Rt4.4	R4.6	R4.4
GREEN 15	Rt4.5	Rt4.3	R4.5	R4.2
GREEN 10	Rt4.3	Rt4.2	R4.3	R4.1

System Description: 110mm brickwork (k=0.76), > 20mm reflective airspace, 19mm reflective airspace, Foilboard, 19mm x 35mm softwood batten, non-reflective wall wrap, Foilboard panel, 90mm x 35mm timber frame, 600mm stud spacing, 90mm R2.7 glass wool batt insulation, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

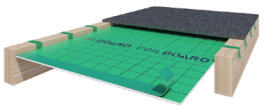
Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD INSULATION SYSTEMS

Application - Underfloor (Timber)

SYSTEM R VALUES

Saddles

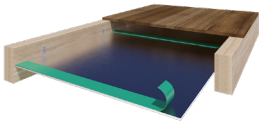


FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 20	20mm	Rt2.8	Rt2.0	R1.8	R1.0
GREEN 15	25mm	Rt2.7	Rt1.9	R1.8	R0.9
GREEN 10	30mm	Rt2.7	Rt1.8	R1.7	R0.8

System Description: Suspended timber floor, sealed airspace, Foilboard panel, enclosed subfloor, 19mm tongue and groove flooring. 140mm x 45mm timber joist at 450mm c/c, 300mm x 50mm pine bearer at 360mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. *Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

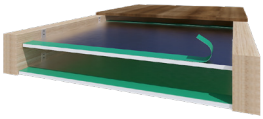
SYSTEM R VALUES

Flexifast



FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	90mm	Rt4.0	Rt2.6	R3.4	R1.7
GREEN 30	110mm	Rt3.8	Rt2.2	R3.0	R1.2
GREEN 20	120mm	Rt3.7	Rt2.0	R2.9	R1.1
GREEN 15	125mm	Rt3.6	Rt1.9	R2.8	R0.9

System Description: Suspended timber floor, sealed airspace above Foilboard, enclosed subfloor, 19mm tongue and groove floorin, 140mm x 45mm timber joist at 450mm c/c, 300mm x 50mm pine bearer at 3600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side down. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

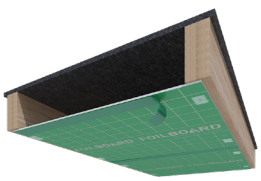


FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE/BETWEEN FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 20 Dual Layer	45mm/60mm	Rt4.8	Rt2.9	R4.6	R2.1
GREEN 15 Dual Layer	55mm/55mm	Rt4.7	Rt2.7	R4.4	R1.8

System Description: Suspended timber floor, sealed airspace above Foilboard, sealed airspace between Foilboard layers, enclosed subfloor, 19mm tongue and groove flooring, 140mm x 45mm timber pine joist at 450mm c/c, 300mm x 50mm pine bearer at 3600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side down. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress.Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Retrofit



FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	140mm	Rt4.6	Rt2.7	R3.6	R1.7
GREEN 25	140mm	Rt4.0	Rt2.2	R3.1	R1.2
GREEN 15	140mm	Rt3.8	Rt1.9	R2.8	R0.9

System Description: Suspended timber floor, sealed airspace above Foilboard, Foilboard installed to bottom of joist, enclosed subfloor, 19mm tongue and groove flooring. 140mm x 45mm timber joist at 450mm c/c, 300mm x 50mm pine bearer at 3600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

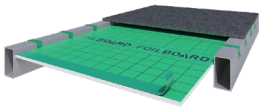
Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD
INSULATION SYSTEMS

Application - Underfloor (Steel)

SYSTEM R VALUES

Saddles

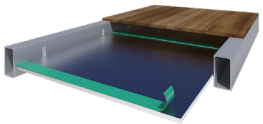


FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 20	20mm	Rt2.1	Rt1.7	R1.8	R1.1
GREEN 15	25mm	Rt2.1	Rt1.6	R1.8	R0.9
GREEN 10	30mm	Rt2.1	Rt1.5	R1.7	R0.8

System Description: Suspended timber floor, sealed airspace above Foilboard, enclosed subfloor, 19mm tongue and groove flooring. 10mm x 50mm x 1.9mm steel joist at 450mm c/c, 250mm x 50mm steel bearer at 5600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. *Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

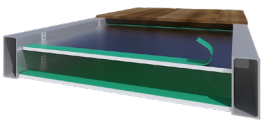
SYSTEM R VALUES

Flexifast



FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	100mm	Rt2.7	Rt1.9	R3.5	R1.7
GREEN 30	120mm	Rt2.6	Rt1.8	R3.1	R1.3
GREEN 20	130mm	Rt2.5	Rt1.7	R2.9	R1.1
GREEN 15	135mm	Rt2.5	Rt1.6	R2.8	R0.9

System Description: Suspended timber floor, sealed airspace above Foilboard, enclosed subfloor, 19mm tongue and groove flooring, 150mm x 50mm x 1.9mm steel joist at 450mm c/c, 250mm x 5600mm. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side down. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

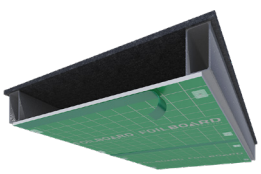


FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE/BETWEEN FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 15 Dual Layer	60mm/60mm	Rt2.9	Rt2.0	R4.6	R1.8
GREEN 15 Dual Layer 1xBWJ & 1 x UJ	55mm/80mm	Rt4.5	Rt2.5	R4.7	R1.8

System Description: Suspended timber floor, sealed airspace above Foilboard panel, sealed airspace between Foilboard layers, enclosed subfloor, 19mm tongue and groove flooring, 150mm x 50mm x 1.9mm streel joist at 450mm c/c, 250mm x 50mm steel bearer at 5600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side down. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress.Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Retrofit



FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	150mm	Rt4.1	Rt2.5	R3.7	R1.7
GREEN 25	150mm	Rt4.6	Rt2.0	R3.1	R1.2
GREEN 15	150mm	Rt3.3	Rt1.8	R2.9	R0.9

System Description: Suspended timber floor, sealed airspace above Foilobard, Foilboard installed to bottom of joist, enclosed subfloor, 19mm tongue and groove flooring. 150mm x 50mm x 1.9mm steel joist at 450mm c/c, 250mm x 50mm steel bearer at 5600mm c/c. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

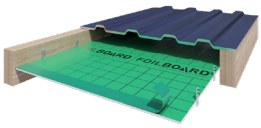
Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD INSULATION SYSTEMS

Application - Roof & Ceilings

SYSTEM R VALUES

Cathedral or Skillion Ceiling (22.5º Slope)

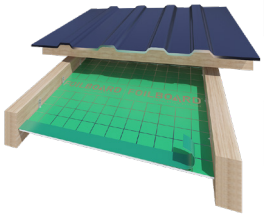


FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	Rt2.2	Rt2.7	R2.1	R2.7
GREEN 25	Rt1.7	Rt2.2	R1.5	R2.2

System Description: 22.5 degree pitched metal roof, layer of reflective sarking (E0.03 facing down), Foilboard panel between rafters, 70mm x 35mm timber battens at 600mm spacing, 140mm x 35mm rafters at 600mm spacing. Foilboard under battens anti-glare side up. Ceiling batten 28mm x 38mm x 0.55 BMT, 10mm plasterboard ceiling. Assumed airspaces are fully sealed and have been designed specifically to prevent air ingress. Calculation based on slight dust cover. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

High R Value Cathedral or Skillion Ceiling



FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50 (dual)	Rt3.9	Rt5.3	R3.8	R5.0
GREEN 25 (dual with blanket)	Rt4.1	Rt4.8	R4.1	R4.9

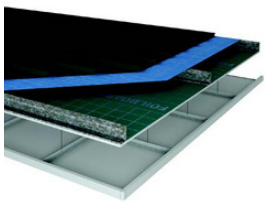
System Description Dual GREEN 50: 22.5 degree pitched metal roof, reflective sarking (E0.03 facing down), Foilboard under battens / 35mm reflective airspace above adjusted for sag in sarking / 18mm below. Foilboard between rafters reflective airspace below. 70mm x 35mm timber battens at 600mm spacing, 140mm x 35mm rafters at 600mm spacing. Foilboard between rafters anti-glare side up, ceiling batten (28mm x 38mm x 0.55 BMT) bottom of rafter, 10mm plasterboard ceiling. Assumed airspaces are fully sealed and have been designed specifically to prevent air ingress. Calculation based on slight dust cover.

System Description Dual GREEN 25: 22.5 degree pitched metal roof, 60mm insulation blanket R1.3, (E0.03 facing down), Foilboard between rafters, 70mm x 35mm timber battens at 600mm spacing, 140mm x 35mm rafters at 600mm spacing. Foilboard between rafters anti-glare side up, ceiling batten (28mm x 38mm x 0.55 BMT), 10mm plasterboard ceiling. Assumed airspaces are fully sealed and have been designed specifically to prevent air ingress. Calculation based on slight dust cover. Calculated per AS/NZS 4859, Part 1&2 2:2018.

Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Suspended Ceiling



FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	Rt2.3	Rt4.5	R2.1	R4.3
GREEN 40	Rt2.1	Rt4.3	R1.9	R4.1
GREEN 25	Rt1.7	Rt3.9	R1.6	R3.8

System Description: Flat metal roof, layer of reflective sarking (E0.03 facing down), Foilboard between C purlins, 250mm x 76mm x 1.9mm BMT C Purlins at 1200mm spacing, Foilboard antiglare up, 10mm suspended plasterboard ceiling tiles. Assumed airspaces are fully sealed and have been designed specifically to prevent air ingress. Calculation based on slight dust cover. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway. If elements of construction vary from that described, this may produce a difference thermal resistance result.

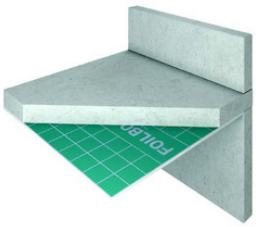
Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD
INSULATION SYSTEMS

Application - Suspended Slab

SYSTEM R VALUES

Suspended Slab - Underfloor Direct Fix

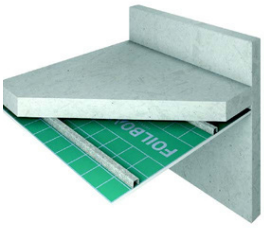


FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	Rt2.9	Rt2.2	R1.9	R1.3
GREEN 40	Rt2.7	Rt2.0	R1.7	R1.1
GREEN 20	Rt2.2	Rt1.6	R1.2	R0.7

System Description: 180mm concrete slab (k=1.44), direct fix Foilboard panel to underside of slab, enclosed subfloor 500mm. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Suspended Slab - Underfloor Batten Fixing

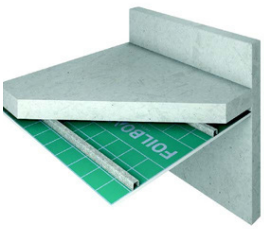


FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	28mm	Rt3.6	Rt2.6	R2.6	R1.7
GREEN 40	28mm	Rt3.4	Rt2.4	R2.4	R1.5
GREEN 20	28mm	Rt2.9	Rt1.9	R1.9	R1.1

System Description: 180mm concrete slab (k=1.44), 28mm x 38mm x 0.55 BMT space 600mm c/c, Foilboard insulation to underside of battens, antiglare facing up, enclosed subfloor 500mm. Ground thermal resistance based on subfloor ventilation area per perimeter length 6000mm^2/m = R0.58 heat flow out and R0.56 heat flow in. Foilboard installed anti-glare side up. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

SYSTEM R VALUES

Suspended Slab - Ceiling



FOILBOARD PANEL	REFLECTIVE AIRSPACE ABOVE/BELOW FOILBOARD	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	20mm/28mm	Rt2.4	Rt2.9	R2.1	R2.7
GREEN 25	20mm/28mm	Rt1.9	Rt2.4	R1.5	R2.1
GREEN 15	20mm/28mm	Rt1.6	Rt2.1	R1.3	R1.9

System Description: 200mm suspended concrete ceiling. 20mm reflective sealed airspace above Foilboard, Foilboard installed anti-glare side up, 28mm reflective sealed airspace, Foilboard, 28mm x 38mm x 0.55 BMT battens spaced 600mm c/c, 10mm plasterboard. Fully sealed airspace assumes no dust cover on upward facing surfaces. Enclosed cavity to prevent air ingress. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

Application - Sheds

SYSTEM R VALUES

Sheds - Small & Large Structures

Foilboard is a leading shed insulation for all existing and new sheds. It will keep your shed, garden shed, workshop, office or garage cooler in the summer and warmer in the winter.

- Total System R Values over Rt3.5 (heat flow out) and Rt4.0 (heat flow in) can be achieved in a roof of a shed.
- Total System R Values over Rt2.5 can be achieved in walls.

FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	Rt2.8	Rt2.7	R2.5	R2.4
GREEN 40	Rt2.6	Rt2.5	R2.3	R2.2
GREEN 25	Rt2.3	Rt2.2	R2.0	R1.9
GREEN 20	Rt2.1	Rt2.0	R1.8	R1.8

System Description: Metal cladding, steel top-hat grits 64mm x 34mm x 1.0mm at 1200mm c/c, Foilboard installed to top-hats. Steel columns 150mm x 50mm x 1.5mm 400mm c/c, 19mm x 35mm pine battens spaced 600mm c/c, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

FOILBOARD PANEL	HEAT FLOW DOWN	HEAT FLOW UP	ADDED INSULATION R VALUE HEAT FLOW DOWN	ADDED INSULATION R VALUE HEAT FLOW UP
GREEN 50	Rt2.0	Rt2.6	R2.0	R2.6
GREEN 25	Rt1.6	Rt2.3	R1.6	R2.5
GREEN 20	Rt1.5	Rt2.2	R1.5	R2.4

System Description: Metal cladding roof. Foilboard installed to top-hats. Steel columns 150mm x 50mm x 1.5mm at 4000mm c/c. 10 degrees pitched roof, steel top-hat girts 64mmx34mmx1.0mm at 1200 mm c/c. 19mmx35mm pine timber battens at 600mm c/c, 10mm plasterboard lining. Calculated per AS/NZS 4859, Part 1&2 2:2018. Added insulation R value includes the material insulation R value and the R values of the associated reflective airspaces within the insulation system pathway less non-reflective enclosed subfloor air film. If elements of construction vary from that described, this may produce a difference thermal resistance result.

Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

Applications - Other

OTHER

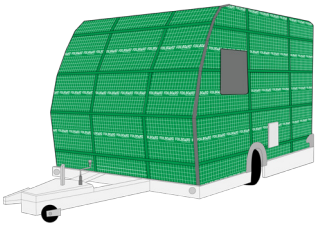
Garage Doors

By installing Foilboard Insulation on a panel lift garage door, it will reduce the radiant heat entering your garage and decrease energy costs of the home. Insulating the garage door will improve the comfort of the garage for other uses such as home gym, providing an additional living or workspace.

- Total System R Values of over Rt1.5 can be achieved.

OTHER

Caravans & Motor Homes

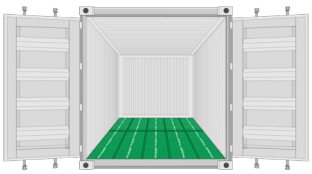


Foilboard is ideal for use in van and motor-home projects.

It is easy to handle, won't absorb moisture and has a radiant heat barrier that aids in preventing radiant heat from entering your vehicle. It is perfect for use in the walls and the roof with its slimline design, that allows you to maximise your living space within your motor home.

OTHER

Shipping Containers



Foilboard insulation will provide superior thermal resistance for the ceiling, walls and floor.

Foilboard is retrofitted inside the shipping container to the ceiling, walls and floor to create a complete thermal and moisture barrier to withstand the external elements.

Where applicable, Foilboard GREEN should be installed per the National Construction Code (NCC) applicable state building legislations and/or a performance solution.

FOILBOARD INSULATION SYSTEMS

Accessories

FINELINE	PRODUCT CODE	DESCRIPTION	IMAGE	QTY	COVERAGE	RECOMMENDED USE
0810978	FB 041	Standard Fasteners		250	1 box covers 15 panels	Used to fix Foilboard panels GREEN 10 & 15 to timber wall frames and underfloors. (30mm nail with blank plate 50mm W x 35mm D)
0810879	FB 041	Ultra Fasteners		250	1 box covers 15 panels	Used to fix Foilboard panels GREEN 20 & 25 to timber wall frames and underfloors. (40mm nail with blank plate 50mm W x 35mm D)
0810880	FB 043	Blank Plates		250	1 box covers 15 panels	Used to fix Foilboard panels using non standard screws & nails to wall frames and underfloors. (blank plate 50mm W x 35mm D)
0810881	FB 044	Metal Fasteners		250	1 box covers 15 panels	Used to fix Foilboard panels GREEN 10 & 15 to steel wall frames, underfloors and purlins. (30mm screw (no.1 square drive) with blank plate 50mm W x 35mm D)
0810882	FB 045	Metal Ultra Fasteners		250	1 box covers 15 panels	Used to fix Foilboard panels GREEN 20 & 25 to steel wall frames, underfloors and purlins. (40mm screw (no.1 square drive) with blank plate 50mm W x 35mm D)
0810883	FB 051	Floor Saddles		250	1 box covers 15 panels	Sits atop of joists to hold Foilboard panels GREEN 10 & 15 in place before laying floor in new builds. (suits timber or metal, 50mm W x 40mm D)
0131086	FB 054	Flexifast Fasteners		400	1 box covers 15 panels	Used to fix Foilboard panels GREEN 10 - 50 between framework, joists, purlins for retrofitting underfloors. (25mm W x 90mm D)
0810909	FB 061	Green Joining Tape		1	1 roll covers 15 panels	Used to cover butt joints of Foilboard panels on the green anti-glare face.
0810885	FB 062	Silver Joining Tape		1	1 roll covers 15 panels	Used to cover butt joints of Foilboard panels on the green anti-glare face.
0810886	FB 071	Spacer Blocks		100	15 - 25m^2	Used to space Foilboard panels in double brick cavity and commercial concrete walls. (60mm W x 60mm L x 20mm D)

NEED AN INSTALLATION GUIDE?
www.foilboard.com.au/installation

FOILBOARD INSULATION SYSTEMS

Design Services

Ensuring Optimal Performance

Foilboard Insulation offers a valuable design service to aid in the design and construction stages of every project.

From commercial projects, to the humble renovation or D.I.Y. project, our technical team is always happy to provide advice and guidance for any project.

- Design Assistance
- Installation Guidance
- Technical Data
- Thermal Calculations

A Better Product Improves Your Performance

Unlike traditional bulk insulation, the Foilboard GREEN slimline profile makes for an ideal thermal break & vapor barrier, and with its superior thermal performance, it ensures a continuous “esky” effect to the building year round.

- **Manufactured to Australian Standards**
- **NCC Compliant**
- **Fire retardant**
- **Formaldehyde free**
- **CFC & HCFC free**
- **No dangerous airborne particles**
- **Achieves high R-values without the need for re-engineering the building’s design**
- **Installed without thermal bridging**
- **Lightweight and fast to install**
- **Impervious to moisture**
- **100% Australian Made & Owned**

Environment

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 is no solid waste generated during the EPS manufacturing process. Waste and off-cuts are easily put back into the production process.

The pure aluminum that is directly laminated to both sides of the Foilboard Insulation Panel is also 100% recyclable.

Foilboard GREEN

- NCC compliant
- Environmentally safe
- No harmful "itchy" fibres
- Fire retardant rigid panel
- Excellent acoustic properties
- Lightweight & durable

Foilboard GREEN 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 30 years, Foilboard GREEN insulation panel was the first panel of its kind in the Australian market.

FOILBOARD®
INSULATION SYSTEMS

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