



## TECHNICAL MANUAL

### IBOARD G1 Group 1 Insulated Soffit Lining

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#### 1.1 About This Manual:

This manual has been developed to effectively assist fabricators and contractors to work with IBOARD G1. Due to the uncontrollable conditions onsite and different methods of job scope, as well as the variable skills and judgment of installers and the quality of equipment, tools, etc, the suggestions and recommendations contained in this manual are provided without warranty. The information and recommendations herein are believed to be correct at time of publishing.

BLUECHIP reserves the right to revise the contents of this manual without prior notice. Any construction or use of the product must be in accordance with all local zoning and/or building codes and in accordance with the current NCC at the time of use. Except as contained in a written warranty certificate, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

#### 1.2 Company Background:

Founded in 2003 by five brothers, BLUECHIP has grown every year since to become one of Australia's leading suppliers of architectural building envelopes. BLUECHIP's product range covers the complete system from the structure out including all types of cladding materials, composite decking, sub-framing, insulation, waterproofing and fixings.

With offices in Sydney, Melbourne and Perth, BLUECHIP has supplied more than 3,000,000m<sup>2</sup> of materials to Australian projects since 2003. Our commitment to innovation and ongoing investment in R&D ensures BLUECHIP will continue to lead the market with BCA/NCC compliant facade solutions in the years ahead.

For architects and consultants, BLUECHIP's wide range of different materials and 'complete-system' approach enables the creation of inspiring high-performance facades. For builders and contractors, BLUECHIP's large local stock, well established supply chains and genuine appreciation for our clients means you can trust us to deliver as promised every time.

#### 1.3 Company Details:

Company: Blue Chip Group Pty Ltd  
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Phone: 1300 945 123  
Email: [sales@bluechipgroup.net.au](mailto:sales@bluechipgroup.net.au)

#### Important Note:

If non-combustible insulation is required, such as in the external walls of a type A or B construction building, use IROCK non-combustible mineral wool insulation board instead; <https://www.bluechipgroup.net.au/insulation-perth/non-combustible-rockwool-insulation.html>



## 1.4 Product Description:

### Group 1 Insulated Soffit Lining

IBOARD G1 insulated soffit lining comprises of a Group 1 rated 6mm fibre cement facer bonded to a concealed rigid insulation board composed of a closed-cell thermoset polyisocyanurate foam. Tested in accordance with relevant AS/NZ standards, IBOARD G1 is compliant for use in all soffit applications in accordance with NCC 2019. Providing higher R-values from less thickness, IBOARD G1 allows increased clearance height within carparks while still meeting thermal requirements making it the safest and most practical option for all concrete soffit and under-slab applications.

### Group 1 Fire Rating\*

IBOARD G1 insulated soffit lining has a non-combustible fibre cement facer which achieves a Group 1 fire rating in accordance with AS 5637 for superior safety and compliance in all under slab soffit applications.

### Unlimited Colours

IBOARD G1 insulated soffit lining has an attractive light grey fibre cement finish which can be left untreated, painted insitu, or supplied prefinished in unlimited custom colours to your selection.

### Superior Ageing Performance

Due to its outstanding resistance to moisture and excellent compressive strength, IBOARD G1 soffit insulation offers much better thermal ageing performance than other products.

### 100% Non-Corrosive

Unlike some other insulation products, IBOARD G1 core material is 100% non-corrosive and will not cause corrosion issues if it comes in contact with structural steel or fixings.

### Zero Formaldehyde

IBOARD G1 soffit insulation contains zero traces of formaldehyde and it is fibre-free making it non-irritant to the skin, non-allergenic and safer compared to other products.

### Australian Fire Testing\*

IBOARD G1 insulated soffit lining has NATA accredited testing to relevant Australian fire standards and its Group 1 fire rating means it is compliant with NCC 2019 for all lining applications.

### Environmentally Friendly

IBOARD G1 soffit insulation is manufactured in Europe under strict quality control using only CFC/HCFC free blowing agents which have Zero Ozone Depletion Potential (ODP).

### Micro Cell Technology

IBOARD G1 has a much finer cell structure with extremely low water absorption compared to other products (<0.6%) so its R-value is retained long-term and it is rot and mould proof.

\*Group 1 fire rating applies to the exposed fibre cement facing, being the wall or ceiling lining, in accordance with AS 5637 and NCC 2019 Specification C1.10 requirements.

## 1.5 More Information on IBOARD G1:

<https://www.bluechipgroup.net.au/insulation-perth/soffit-insulation-perth.html>



## 2.1 Physical Properties

ITEM	TEST STANDARD	UNIT	RESULT
Unit Weight (Density) <ul style="list-style-type: none"> <li>Insulation (30-100mm)</li> <li>Fibre Cement (6mm)</li> </ul>	Actual Actual	Kg/m <sup>3</sup> Kg/m <sup>2</sup>	32 9
Thermal Conductivity (Insulation)	EN 13165	W/mK	0.022*
Thermal Conductivity (Fibre Cement)	ASTM C518	W/mK	0.23*
Material R-value Combined* <ul style="list-style-type: none"> <li>36mm Thickness</li> <li>46mm Thickness</li> <li>56mm Thickness</li> <li>66mm Thickness</li> <li>76mm Thickness</li> <li>86mm Thickness</li> <li>96mm Thickness</li> <li>106mm Thickness</li> </ul>	ASTM C518 ASTM C518 ASTM C518 ASTM C518 ASTM C518 ASTM C518 ASTM C518 ASTM C518	R-value R-value R-value R-value R-value R-value R-value R-value	1.38* 1.84* 2.29* 2.75* 3.20* 3.66* 4.11* 4.57*
Compressive Strength <ul style="list-style-type: none"> <li>0% Deformation</li> <li>10% Deformation</li> </ul>	EN 826 EN 826	kPa kPa	110 150
Tensile Strength (Insulation)	EN 1607	kPa	80
Dry Delamination (Insulation)	AS 4201.1	-	Pass
Wet Delamination (Insulation)	AS 4202.2	-	Pass
Surface Corrosion (Insulation)	AS 4859.1	-	Pass
Water Vapour Diffusion (Insulation) <ul style="list-style-type: none"> <li>PIR Foam</li> <li>Foil Facings</li> </ul>	Actual Actual	μ μ	60 100,000
Water Absorption (After 28 Days)	EN 12087	%	1
Water Absorption (Partial Immersion)	EN 1609	%	0.1

\*The insulation thermal conductivity is calculated using the aged fixed increment method as per AS 4859.1 and material R-values are calculated based on insulation thickness at 0.022 W/mK in addition to the 6mm fibre cement facer at 0.23 W/mk.

## 3.1 Fire Performance

ITEM	TEST STANDARD	UNIT	RESULT
Group Rating	AS 5637	-	Group 1**
Average Specific Extinction Area	AS 5637	m <sup>2</sup> /kg	<250**
Smoke Growth Rate (SMOGRA)	AS 5637	m <sup>2</sup> /s <sup>2</sup> x1000	<100**
Ignitability Index	AS 1530.3	-	0***
Spread of Flame Index	AS 1530.3	-	0***
Heat Evolved Index	AS 1530.3	-	0***
Smoke Developed Index	AS 1530.3	-	2***

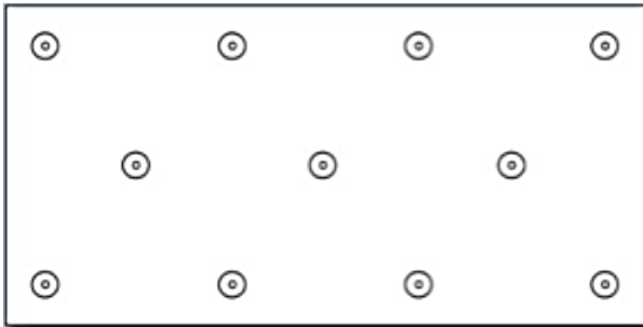
\*\*The AS 5637 testing and Group 1 rating applies to the exposed fibre cement facer, being the wall or ceiling lining, in accordance with NCC 2019 Specification C1.10 requirements.

\*\*\*The AS 1530.3 testing applies to the insulation material, being a concealed insulation material, in accordance with NCC 2019 Specification C1.10 requirements.

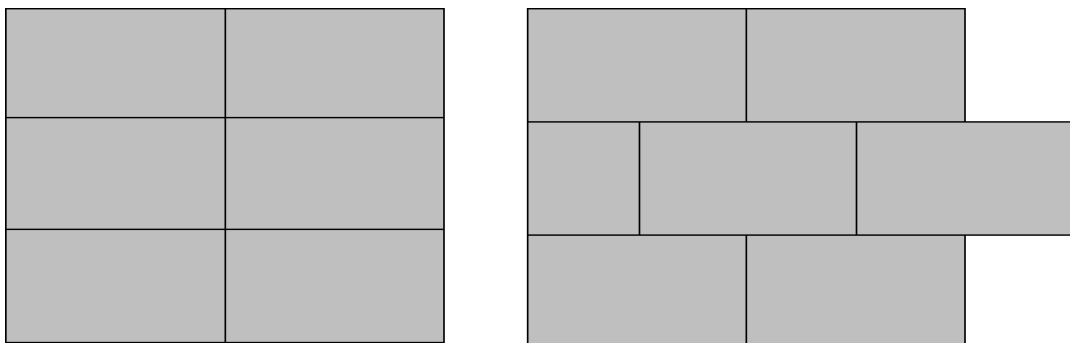


#### 4.1 IBOARD G1 Installation in Underslab Soffit Application:

- IBOARD G1 insulation boards can be fully restrained to a concrete soffit by the use of a minimum number of 11 appropriate fasteners with a minimum head diameter of 35 mm.
- The fasteners should be evenly distributed over the whole area of the board and must offer a minimum 40 mm penetration into a solid substrate. Alternatively, a designer can calculate the required design strength to identify a suitable embedment for the design loading of a project and/or application.
- Standard fastener layout is 4 x fasteners along each length (no less than 50mm and no more than 150 mm from edge of board) with additional 3 x fasteners along the middle of the board length-wise for total 11 fasteners. (See below detail).



- Where the board may be subject to external wind pressure, the requirement for additional fixings should be assessed in accordance with appropriate Australian standards.
- Consideration should be given to the material the fixing is made from and should be deemed appropriate for the application, exposure and required fire rating by the fixing manufacturer.
- Board joints can be either staggered or squared (See below detail).



- Cutting should be carried out by using a fine-toothed saw. Ensure accurate trimming to achieve close-butting joints and continuity of insulation.
- The insulation boards shall be installed in accordance with the latest version of the Australian NCC/BCA as well as any other government regulations or requirements at any given time and for any project.