



TECHNICAL MANUAL

IBOARD P17 Insulated Plasterboard 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 P17. 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 3,000,000m² 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
ABN: 98 162 282 064
Head Office: 16 Ashby Close, Forrestfield WA 6058
Phone: 1300 945 123
Email: 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:

Insulated Plasterboard Lining

IBOARD P17 insulated plasterboard is an internal lining product composed of a closed-cell thermoset polyisocyanurate foam core bonded to a 10mm deemed-to-satisfy non-combustible gypsum-based plasterboard. Tested in accordance with relevant AS/NZ standards, IBOARD P17 insulated plasterboard provides the highest-level group 1 fire rating in accordance with AS 5637*. Unlike alternative products, IBOARD P17 insulated plasterboard offers excellent ageing performance due to its very high moisture resistance and it is 100% formaldehyde free for superior air quality and occupant wellbeing.

Zero Formaldehyde

IBOARD P17 insulated plasterboard 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.

Group 1 Fire Rating*

IBOARD P17 insulated plasterboard has a non-combustible plasterboard facer which achieves a Group 1 fire rating in accordance with AS 5637 for superior safety and compliance in all internal lining applications.

Superior Ageing Performance

Due to its outstanding resistance to moisture and excellent compressive strength, IBOARD P17 insulated plasterboard offers much better thermal ageing performance than other products.

100% Non-Corrosive

Unlike some other insulation products, IBOARD P17 insulated plasterboard core material is 100% non-corrosive and will not cause corrosion issues if it comes in contact with structural steel or fixings.

Higher R-Value

IBOARD P17 insulated plasterboard provides excellent thermal properties with one of the lowest thermal conductivity ratings of any insulation material on the market at 0.022 W/mK.

Environmentally Friendly

IBOARD P17 rigid insulation is manufactured in Europe under strict quality control using only CFC/HCFC free blowing agents which have Zero Ozone Depletion Potential (ODP).

Time & Space Saver

Due to its being a 2-in-1 product, IBOARD P17 insulated plasterboard is fast and efficient to install and offers cost and space savings due to its high R-value to thickness ratio.

Micro Cell Technology

IBOARD P17 insulated plasterboard 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 plasterboard 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 P17:

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



2.1 Physical Properties

ITEM	TEST STANDARD	UNIT	RESULT
Unit Weight (Density) <ul style="list-style-type: none"> ▪ Insulation (30-100mm) ▪ Plasterboard (10mm) 	Actual Actual	Kg/m3 Kg/m2	32 7
Thermal Conductivity (Insulation)	EN 13165	W/mK	0.022*
Thermal Conductivity (Plasterboard)	ASTM C518	W/mK	0.17*
Material R-value Combined* <ul style="list-style-type: none"> ▪ 40mm Thickness ▪ 50mm Thickness ▪ 60mm Thickness ▪ 70mm Thickness ▪ 80mm Thickness ▪ 90mm Thickness ▪ 100mm Thickness ▪ 110mm Thickness 	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	1.42* 1.88* 2.33* 2.79* 3.24* 3.70* 4.15* 4.61*
Compressive Strength <ul style="list-style-type: none"> ▪ 0% Deformation ▪ 10% Deformation 	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"> ▪ PIR Foam ▪ Foil Facings 	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 10mm plasterboard facer at 0.17 W/mk.

3.1 Fire Performance

ITEM	TEST STANDARD	UNIT	RESULT
Group Rating	AS 5637	-	Group 1**
Average Specific Extinction Area	AS 5637	m2/kg	<250**
Smoke Growth Rate (SMOGRA)	AS 5637	m2/s2x1000	<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 plasterboard 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 P17 Installation in Internal Lining Applications:

- All fixing and finishing should be done in accordance with the most recent version of GTEK plasterboard's instructions, most commonly found in the Technical Brochure. <https://gtekplasterboard.com.au/plasterboard/wall-ceiling/wall>
- It is incumbent on the installer to ensure that using the plasterboard in combination with the IBOARD P17 insulation board will not breach any of GTEK's instructions.
- IBOARD P17 can be applied by employing a variety of traditional or modern dry-lining techniques, to any dry and structurally sound wall which is straight and aligned.
- It is recommended to install IBOARD P17 using a combination of both adhesive and mechanical fixings in all applications.
- While there is no issue with the PIR itself getting wet the IBOARD P17 facer should not be considered suitable for outdoor storage. IBOARD P17 should generally be stored inside a building, however, if temporary outdoor storage cannot be avoided then the boards should be stacked flat on a level base, clear of the ground, and completely protected from any moisture. Boards that get wet should be discarded.
- Cutting should be carried out by using a fine-toothed saw or as per GTEK advice. 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.
- IBOARD P17 should not be used on external walls of type A & B Construction projects.

Important Information:

The instructions in this brochure are for illustration purposes only and are not meant to replace a licensed professional. Any construction or use of the product must be in accordance with all local zoning and/or building codes. The consumer assumes all risks and liability associated with the construction or use of this product. The consumer or contractor should take all necessary steps to ensure the safety of everyone involved in the project, including, but not limited to, wearing the appropriate safety equipment. Except as contained in a written warranty, the supplier does not provide any other warranty, either express or implied, and shall not be liable for any damages, including consequential damages.

