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Certificate Holder:
Thermal Panel
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Certificate of Conformity

Certificate number: CM 30132 Rev 2

THIS IS TO CERTIFY THAT

ThermFlam PIR Sandwich Panel System

Type and/or use of product:

For use as wall and ceiling panels in all building types and classes (BCA Volume 1 and 2) where insulated panels may be required (ambient and temperature controlled rooms).

Description of product:

Polyisocyanurate (PIR) core Sandwich panels with 0.4mm, 0.5mm or 0.6mm Steel skins in overall panel thicknesses of 50mm to 150mm.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2022 (A1)

	Volume One including Amendment 1		Volume Two including Amendment 1 and Housing Provisions	
Performance Requirement(s)	B1P1(1), (2)(a), (b) and (c)	Structural Reliability	H1P1(1), (2)(a), (b), (c) and (3)	Structural Stability and Resistance
	B1P2	Structural Resistance		
Deemed-to-Satisfy Provision(s):	C2D11(1)(b) and (i)	Fire Hazard Properties		
	J3D8	External walls of a sole-occupancy unit of a Class 2 building or a Class 4 part of a building	HP 13.2.5	Energy efficiency – Building fabric – External walls
	J3D9	Wall-glazing construction of a sole-occupancy unit of a Class 2 building or a Class 4 part of a building		

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the certificate holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

The purpose of Global-Mark **construction site audits** is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In placing the **CodeMark mark** on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein. In issuing this Certificate of Approval Global-Mark has relied on the **expertise of external bodies** (laboratories, and technical experts).

Herve Michoux
Global-Mark Managing Director

Peter Gardner
Unrestricted Building Certifier

Date of issue: 05/08/2025

Date of expiry: 17/12/2027



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	J4D6	Energy efficiency – Building fabric – Wall – Glazing Construction		
State or territory variation(s):	NSW C2D11	Fire Hazard Properties		
	NSW Section J	Energy efficiency: Class 2 or Class 4 part of a building (up to V3 BASIX dwellings & BASIX Alterations and additions) – NCC 2019 A1 NSW Section J Class 2 or Class 4 part of a building (V4 or later BASIX dwellings) plus Class 3, 5, 6, 7, 8 & 9 buildings – NCC 2022 Section J	NSW Part H6	Energy efficiency: Up to V3 BASIX dwellings & BASIX Alterations and additions – NCC 2019 A1 NSW 2.6 V4 or later BASIX dwellings – NCC 2022 NSW Part H6
	NSW J3D8	External Walls (Class 2 and Class 4 parts of building)	NT Part H6	Energy Efficiency – Building Fabric
	NSW J4D6	Energy efficiency – Building Fabric – External - Walls and Glazing	TAS Part H6	Energy Efficiency – Building Fabric – BCA 2019 (A1) Part 2.6
			HP NSW 13.2.5	Energy Efficiency – Building Fabric - External Walls
	TAS Part J3	Sole occupancy unit (Class 2 and Class 4 parts of building)	HP NT Part 13.2.5	Energy Efficiency – Building Fabric – External Walls
			HP TAS Part 13.2	Energy Efficiency - Building Fabric
SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B				
Limitations and conditions:				Building classification/s:
<p>NCC Volume One C2D11 (1)(b)</p> <ol style="list-style-type: none"> When used/exposed as internal wall/ceiling lining material in any class 2-9 buildings, the assessed Therm-Flam Panel system achieved a Group 2 product classification with $SMOGR_{RC} < 100 \text{ m}^2/\text{s}^2 \times 1000$ in accordance with AS 5637.1:2015. For Group No applications, NCC 2022 +A1 Volume One Specification 7 table S7C4 should be consulted. The same or better fire safe construction methods under the AS ISO9705:2003 (R2016) fire tests should be used to achieve the Group 2 classification, such as: 50mm AUSTHRANE PIR45 encased by min. 0.4mm Colorbond steel; min. 0.6mm steel or aluminium angles at junctions fixed to steel skins with steel or aluminium rivets at 300 mm spacings; and, where ceiling panels are required to be supported by mushroom bolts, they must be steel of diameter no less than 10 mm and include steel washers. For site specific conditions with other fire performance requirements, approved qualified personnel should be consulted. 				Class 2-9

<p>NCC Volume One B1P1 (1) & (2) (a), (b), (c) & B1P2 NCC Volume Two H1P1(1), (2)(a,b,c) & (3)</p> <ol style="list-style-type: none"> 1. The general notes/ assumptions/ limitations in the Technical Manual and ThermFlam structural report (including span tables) should be consulted when using the product span tables. 2. When used as external walls/ceilings, product span tables may only be applicable to non-cyclonic wind regions. 	<p>Class 1-10</p>
<p>NCC Volume One J3D8, J3D9, J4D6 NCC Volume Two HP13.2.5</p> <p>These products contribute to the thermal resistance of the whole building or building system, thereby contributing to the compliance of Volume One J1P1, J3D8, J3D9, J4D6 and Volume Two H6P1, HP13.2.5 etc.</p> <p>However, for total building/system thermal compliance, relevant NCC clauses should be consulted and followed, whole building thermal performance should be assessed by qualified personnel.</p>	<p>Class 1-10</p>

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

Walls and ceilings in ambient and temperature controlled building applications where sandwich panels are required. Refer to page 1 of this certificate.

A2 Description of product

Polyisocyanurate (PIR) core Sandwich panels with 0.4mm, 0.5mm or 0.6mm Steel skins in overall panel thicknesses of 50mm to 150mm.

A3 Product specification

Colourbond Steel Skin options of 0.4mm, 0.5mm & 0.6mm thickness over PIR foam core.

A4 Manufacturer and manufacturing plant(s)

Thermal Panel Solutions Pty Ltd – Gate 2, 25 Garling Road, Kings Park, NSW, 2148.

A5 Installation requirements

Refer to Thermal Panel Solutions Construction Details, Revision-A, 29/03/2021 for standard construction details.

Installation shall be carried out by an accredited installer in accordance with the Insulated Panel Council Australasia Ltd (IPCA) Code of Practice, Version 4.3, 2017. Refer to Annex A for typical construction details.

Refer to the installation conditions specified in the Thermal Panel Solutions Technical Manual (File Reference: Thermal Panel Solutions Technical Manual_ R3.1_250519).

A6 Other relevant technical data

Thermal Panel Solutions Technical Manual_ R3.1_250519.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

The following assessment methods have been used to determine compliance with BCA 2022 (A1):

Code Clause	Assessment Method(s)	Evidence of suitability	Evidence reference in B2
Volume One B1P1(1) & (2)(a, b, c)	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) Certificate or report from a professional engineer or other appropriately qualified person	Items 3
		Volume One A5G3(1)(f) Another form of documentary evidence	Item 1, 2 and 4
Volume One B1P2	Volume One A2G2(2)(a)	Volume One A5G3(1)(e) Certificate or report from a professional engineer or other appropriately qualified person	Items 3
		Volume One A5G3(1)(f) Another form of documentary evidence	Item 1, 2 and 4
Volume One C2D11(1)(b), (i)	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 5, 6, 10 and 11
		Volume One A5G3(1)(f) Another form of documentary evidence	Item 1, 2 and 4
Volume One J3D8	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume One A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume One J3D9	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume One A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume One J4D6	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume One A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume one NSW C2D11	Volume One A2G3(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 5, 6, 10 and 11
		Volume One A5G3(1)(f) Another form of documentary evidence	Item 1, 2 and 4
Volume One NSW Section J	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume One A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume One NSW J3D8	Volume One A2G2(2)(a)	Volume One A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume One A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume One NSW J4D6	Volume One A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume One TAS Part J3	Volume One A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume Two H1P1(1), (2)(a, b, c) & (3)	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(e) Certificate or report from a professional engineer or other appropriately qualified person	Items 3
		Volume One A5G3(1)(f) Another form of documentary evidence	Item 1, 2 and 4
Volume Two H6D2(b)(i)	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
Volume Two HP 13.2.5	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4

NSW Part H6	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
HP NSW 13.2.5	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
TAS Part H6	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
HP TAS Part 13.2	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
NT Part H6	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
HP NT Part 13.2	Volume Two A2G2(2)(a)	Volume Two A5G3(1)(d) Report issued by a registered testing authority	Items 7, 8 and 9
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4
		Volume Two A5G3(1)(f) Another form of documentary evidence	item 1, 2 and 4

B2 Reports

The following reports have been used as evidence to determine compliance with BCA 2022 (A1):

Ref	Author	Reference	Date	Description	NATA Registration
1	Thermal Panel Solutions	Technical Manual _R3.1_250519	May 2025	Technical Manual.	Not applicable
2	Thermal Panel Solutions	Thermal Panel Construction details Rev A	29 March 2021	Detailed panel construction drawings	Not applicable
3*	Clarkson Consulting Engineering Scott Clarkson	Therm-Flam Structural Report	27/06/2025	Provides the basis of calculations conducted and the Non-Cyclonic Structural Span Tables for Therm-Flam PIR Panels. Structurally calculated wind pressure load limits for various panel thickness with vary steel skin thickness and spans, including assumptions and load conditions	Not applicable
4	AUSBLOX Service Pty Ltd	AUSBLOX PIR45 Rigid cellular Polyisocyanurate foam Technical Datasheet Oct 2024	Oct 2024	AUSBLOX PIR45 rigid cellular Polyisocyanurate foam Technical Datasheet. Declared properties of PIR core material including physical properties, thermal properties and fire hazard properties.	Not applicable
5*	Warrington Fire	Test report Therm-Flam 20210426-RTF200391 R1.0	25/03/2021	The test was conducted on 50mm ThermFlam panel system in accordance with AS ISO 9705 – 2003 (R2016) and the test product was classified as Group 2 in accordance with AS 5637.1 - 2015 It provides basis for the supporting evidence of compliance with test result of Group 2 product with SMOGRARC (m2/s2x1000) 20.7, subject to construction conditions.	No. 3277

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6*	Australian Wool Testing Authority (AWTA)	Test report 15-004939	15/10/2015	AUSTHANE PIR45 - ThermFlam core material AS1530.3 test report It provides basis for the supporting evidence of compliance with test results of ignitibility index 18, spread of flame index 0, heat involved index 1, and smoke developed index 4	No. 1356
7*	Australian Wool Testing Authority (AWTA)	Test report 22-004822	19/01/2023	UrePac Rigid 70_55PIR - 50mm AL foil faced PIR Polyisocyanurate rigid cellular foam, test was carried out in accordance with ASTM C518-21 and AS/NZS 4859.1:2018 It provides basis for the supporting evidence of compliance with test result of declared thermal conductivity (λ) 0.028W/mK; material R value at 50mm R1.8	No. 1356
8*	Australian Wool Testing Authority (AWTA)	Test report 22-004823	20/01/2023	UrePac70_55PIR - 100mm AL foil faced PIR Polyisocyanurate rigid cellular foam, test was carried out in accordance with ASTM C518-21 and AS/NZS 4859.1:2018 It provides basis for the supporting evidence of compliance with test result of declared thermal conductivity (λ) 0.028W/mK; material R value at 100mm R3.6	No. 1356
9*	Australian Wool Testing Authority (AWTA)	Test report 22-004821	11/01/2023	UrePac70_55PIR – 20mm PIR core material normality test in accordance with EN13165 and ASTM C518-21 and AS/NZS 4859.1:2018 It provides basis for the aging process to the compliance of EN13165/AS/NZS4859.1 long term thermal properties.	No. 1356
10	Jensen Hughes Pty Ltd	Reaction to Fire Test Report RTF250792 R1.0	27 June 2025	Fire testing conducted on 150mm thick Therm-Flam Panels in accordance with AS ISO9705:2003 (R2016)	No 3277
11*	Jensen Hughes Pty Ltd	AS5637.1-2015 classification report	27 June 2025	Group No Assessment/classification was conducted on 150mm thick Therm-Flam Panel in accordance with AS5637.1-2015	
12*	Clarkson Consulting Services Pty Ltd (CCS) Scott Clarkson	ThermalPS Therm-Flam BCA2022 +A1 compliance report_250627	27/06/2025	ThermFlam Panel System NCC2022+A1 compliance Provides context for the clauses claimed and basis for the supporting evidence of compliance.	Not applicable

* The Certificate Holder has chosen not to make the above identified evidence of compliance publicly available, due to the documents being considered commercial in confidence.