Certificate of Conformity

Certification Body:

CMI CERTIFICATION

ABN: 81 663 250 815
JAS-ANZ Accreditation
No. Z4450210AK
PO Box 273,
Palmwoods Qld 4555
Australia
P: +61 7 5445 2199
www.cmicert.com.au
office@cmicert.com.au

Certificate Holder:

BigRiver

Big River Group
ABN: 72 000 009 754
Trenayr Road,
Junction Hill,
NSW 2460
Australia
Ph: +612 6644 0900
www.bigrivergroup.com.au

Certificate number: CM40353 Rev1

THIS IS TO CERTIFY THAT

50mm MaxiWall House & Low-Rise Multi-Residential External Wall System

Type and/or use of product:

Low Rise Multi Residential External Wall System.

Description of product:

50mm MaxiWall House & Low-Rise Multi-Residential System comprises a steel reinforced 50mm non load bearing Autoclaved Aerated Concrete (AAC) 510kg/m³ panel, comprising several proprietary components installed vertically.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S) **BCA 2022**

	Volume One		Volume Two	
Performance Requirement(s):	B1P1(1), (2)(a), (b), (c) & (d)	Structural reliability	H1P1(1), (2)(a), (b), (c) & (d)	Structural stability and resistance
	F3P1	Weatherproofing – Subject to Limitation and condition 6	H2P2	Weatherproofing – Subject to Limitation and condition 6
Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire resistance and stability – Construction of external walls subject to Limitation and condition 2	H3D3	Fire separation of external walls – Construction of external walls subject to Limitation and condition 2
	F8D3	Condensation management – Pliable building membrane	H4D9	Condensation management – Pliable building membrane
	J4D6	Energy efficiency – External walls. Can be used in conjunction with other building elements to achieve a Total R Value. Refer A3	H6D2(1)(b)(i)	Energy efficiency – External walls. Can be used in conjunction with other building elements to achieve a Total R Value. Refer A3
State or territory variation(s):	Not applicable		H4D9 (Tas)	

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B

Limitations and conditions:

1. 50mm MaxiWall House & Low-Rise Multi-Residential System must be installed in accordance with BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings.

Building classification/s:

Class 1,2,3,4,5,6,7,8,9 & 10

Glen Gugliotti – CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 19/03/2025

Date of expiry: 30/11/2026

ABCB JAS-ANZ

2. Where the NCC requires building elements and/or ancillary elements to be non-combustible or achieve specific fire resisting performance requirements, the 50mm MaxiWall House & Low-Rise Multi-Residential System must be constructed to satisfy such requirements as relevant to the determined building class(es).
3. Compliance with FRL is dependent on the system components being as specified in BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings as assessed by Ignis Labs Pty Ltd. Refer A3. Any deviation from this system does not form part of this certificate of conformity. The maximum height of the AAC panel wall system must not exceed 12m and a single installation height per storey must not exceed 3.6m.
4. Reference to the use of timber framing systems in Section A3 is strictly limited to Class 1 & 10 Buildings and structures, Class 2 – 9 Buildings of Type C Construction or otherwise where concession for timber framed construction apply.
5. Timber stud framing must be constructed in accordance with AS1684: National Timber Framing Code & steel stud framing must be constructed in accordance with the Nash Standard for residential and low rise steel framing.
6. Construction methods for external walls required to be fire resisting in relation to Class 1 and 10 buildings and structures must comply with H3D3 of the BCA Volume 2.
7. To satisfy F3P1 & H2P2 via verification, limited to N1 – N3, the relevant design is required to meet the criteria of F3V1 and/or V2.2.1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
   (a)(i) have a risk score of 20 or less, when the sum of all risk factor scores is determined in accordance with Table F3V1a/H2V1a; and
   (a)(ii) not be subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
   (a)(iii) include only windows that comply with AS 2047.
   Compliance with Weatherproofing is limited to the tested specimen and does not cover wind classifications N4-N6 & C1-C4. Deviations from this specimen, is subject to site specific design and approval by the regulatory authority.
8. Structural compliance B1P1(2)(c) & H1P1(2)(c) covers wind classifications N1-N4 & C1-C2. Structural compliance does not cover wind classifications N5-N6 & C3-C4.
9. 50mm MaxiWall House & Low-Rise Multi-Residential System has not been tested and certified for impact loading from windborne debris in Region C and D as denoted in AS/NZS 1170.2:2021. The building designer should take into consideration internal pressure resulting from dominant openings.
10. Design certification for earthquake loading compliance to B1P1(b)(iv) or H1P1(b)(iv) in accordance with AS 1170.4:2007 excludes Meckering Regions and Island Regions.
11. Where a pliable building membrane is recommended or required it must be installed in accordance with AS/NZS 4200.2:2017 and BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings.
12. Components approved under this Certificate of Conformity are not part of the seismic-force-resistance system in B1P1(b)(iv) or H1P1(b)(iv).
13. Other than the items and information listed, the remainder of the information contained in the product's literature is outside the Scope of Certification.
14. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

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.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

Certificate of Conformity

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity.

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.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CMI Certification Pty Ltd (CMI) has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page 1.

A2 Description of product

MaxiWall Panel Physical Properties	
Thickness:	50mm
Standard Width:	600mm
Standard Length:	2200mm, 2400mm
Reinforcement:	5 x Ø4mm steel mesh and 6-8 transverse bar
Nominal Dry Density:	510kg/m^3

50mm MaxiWall House & Low-Rise Multi-Residential System Components	
Product	**Description**
50mm MaxiWall Panel	The Panel is a 50mm thick AAC panel with a minimum nominal dry density of 510kg/m^3 installed vertically to timber or steel framing via top hats.
AAC Adhesive	A dry mixed product made from a blend of selected raw materials such as cement, graded aggregates and performance additives. Used as a structural thin bed adhesive for adhering panels in the construction of walls
Anti-corrosion Paint	For coating and protection of exposed steel reinforcement mesh from corrosion after cutting of the panel.
Joint Sealant	Sealing joints and wall penetrations that are subjected to high humidity and movements. The joint sealant provides superior integrity for fire and acoustic sealing, even when excessively stretched, sealants help maintain the joint's integrity.
Patch Compound	Pre-mixed, water based jointing and patching compound for repairing minor chips, cracks and damages to the corners and edges of panels. It can also be used as a filler compound.
Render Coating	High build acrylic modified cement-based renders for weather resistant, decorative and durable surface finishes over the panels.
Thin-Bed Mortar	Thin-bed, high-strength mortar for the placement of panels where levelling and bonding is required in wall construction. The mortar helps in the integrity of an airtight construction for sound insulation and fire protection at the base of the panels.
Top Hat	24 mm deep x 30 mm wide x 0.42 BMT
Fasteners & Fixing	Fixing of top hat to timber stud frame; No.12-11 x 35 mm Hex Head Type 17 Screw or 5.5 x 40mm batten zips
	Fixing of top hat to steel framing; No.10-16 x 16 mm Hex Head Tek Screw
	Fixing panels to top hat; No.14-10 x 65 mm Bugle Head Type 17 Screw or No. 14-10 x 125 mm Bugle Head Type 17 Screw

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A3 Product specification

The properties of the wall systems relevant to the 50mm MaxiWall system, as described herein, vary with the configuration of the wall structure; It is therefore considered essential that this certificate be read in conjunction with BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings.

Fire resistance Level	The Fire Resistance Level of 50mm MaxiWall system has been assessed by IGNIS Labs Pty Ltd for use as an External Wall System for Low-Rise Multi-Residential and Houses and High Rise Buildings of residential buildings being Class 1 and 10 as well as Class 2 and 3. The maximum height of the 50 mm AAC Panel wall system is set to 12 m based on structural framing requirements. A single installation height per storey is permitted to be up 3.6 m. Design and construction must be in accordance with the 50mm MaxiWall House & Low Rise Multi-Residential Buildings (Vertical) Installation Guide BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings. The evaluation of the 50 mm AAC panel has been undertaken, based on fire testing, determining that an FRL of at least **–/120/120** can be achieved. **Source:** IGNIS Labs Pty Ltd; Report No. IGNL-7294-99R I01 R00, Fire Resistance Level dated 24/10/2023.
Weatherproofing	50mm MaxiWall AAC wall panels (with adhesives applied to the edges and with a weatherproof coat) will meet compliance in a vertical configuration for up to, and including, Wind category N3. ***Source:*** *AECOM, Report dated 11 April 2022.*
Structural	Confirmation that the structural capacity design calculations for strength and serviceability requirements were carried out in accordance with the current relevant building and structural engineering codes in particular; AS 1170.0:2002, AS 1170.1:2002, AS 1170.2:2021, AS 1170.4:2007, AS 5146.2:2018, AS 5216:2021. Structural compliance B1P1(2)(c) & H1P1(2)(c) covers wind classifications N1-N4 & C1-C2 as per **Section 8.0 Fixing Specification** of BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings. ***Source:*** *PACE Structural, Report PS23040, Structural Design Certificate dated 25/10/2024.*
Condensation Management	Installation of a pliable building membrane complying with AS/NZS 4200.1:2017 must be in accordance with AS/NZS 4200.2:2017 to separate the wall cladding panels from any water sensitive materials as shown in the BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings.

Thermal Performance

50mm MaxiWall panel (dry density 510 kg/m³) Wall Systems

					Insulation Path		Overall (Pine Framing 12.13% area)		Overall (Steel framing 5.8% area)	
					Total R_{Ti} m² K/W		Total R, m² K/W		Total R, m² K/W	
Stud Frame	Top hat Cavity	Wall Thickness	Batts	Wall Wrap	Summer	Winter	Summer	Winter	Summer	Winter
64mm	24mm	173mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.6	1.7	1.6	1.7	1.6	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			70mm Bradford Soundscreen Batts R2.0	Thermoseal Wall Wrap XP	2.8	3.0	2.8	3.0	2.8	3.0
			70mm Bradford Soundscreen Batts R2.0	Enviroseal ProctorWrap RW	2.5	2.6	2.5	2.6	2.5	2.6
	35mm	184mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.6	1.7	1.6	1.7	1.6	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			70mm Bradford Soundscreen Batts R2.0	Thermoseal Wall Wrap XP	2.8	3.0	2.8	3.0	2.8	3.0
			70mm Bradford Soundscreen Batts R2.0	Enviroseal ProctorWrap RW	2.7	2.9	2.7	2.9	2.7	2.9
70mm	24mm	179mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.7	1.7	1.7	1.7	1.7	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			70mm Bradford Soundscreen Batts R2.0	Thermoseal Wall Wrap XP	3.0	3.1	3.0	3.1	3.0	3.1
			70mm Bradford Soundscreen Batts R2.0	Enviroseal ProctorWrap RW	2.6	2.8	2.6	2.8	2.6	2.8
	35mm	190mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.6	1.7	1.6	1.7	1.6	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			70mm Bradford Soundscreen Batts R2.0	Thermoseal Wall Wrap XP	3.0	3.1	3.0	3.1	3.0	3.1
			70mm Bradford Soundscreen Batts R2.0	Enviroseal ProctorWrap RW	2.6	2.8	2.6	2.8	2.6	2.8
90mm or 92mm	24mm	199mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.6	1.7	1.6	1.7	1.6	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			90mm Bradford Gold Wall Batts R2.0	Thermoseal Wall Wrap XP	2.9	3.1	2.9	3.1	2.9	3.1
			90mm Bradford Gold Wall Batts R2.5	Enviroseal ProctorWrap RW	3.1	3.3	3.1	3.3	3.1	3.3
			90mm Bradford Polymax Wall Batts R2.5	Enviroseal ProctorWrap RW	3.1	3.3	3.1	3.3	3.1	3.3
			90mm Bradford Gold Wall Batts R2.7	Enviroseal ProctorWrap RW	3.3	3.5	3.3	3.5	3.3	3.5
	35mm	210mm	None	None	0.7	0.7	0.7	0.7	0.7	0.7
			None	Thermoseal Wall Wrap XP Plus	1.6	1.7	1.6	1.7	1.6	1.7
			None	Polyair Performa 4.0 XHD	1.9	1.9	1.9	1.9	1.9	1.9
			90mm Bradford Gold Wall Batts R2.0	Thermoseal Wall Wrap XP	2.9	3.1	2.9	3.1	2.9	3.1
			90mm Bradford Gold Wall Batts R2.5	Enviroseal ProctorWrap RW	3.1	3.3	3.1	3.3	3.1	3.3
			90mm Bradford Polymax Wall Batts R2.5	Enviroseal ProctorWrap RW	3.1	3.3	3.1	3.3	3.1	3.3
			90mm Bradford Gold Wall Batts R2.7	Enviroseal ProctorWrap RW	3.3	3.5	3.3	3.5	3.3	3.5

Notes: *Above all for 10mm Plasterboard Plus lining. The above results are for 50mm Maxiwall (dry density 510kg/m3) external wall system with assumed thermal resistance of R0.29 m².K/W for 4.0% moisture content. For 6mm skim render, Total R-values are R0.04 more than those above*

Source: *James M Fricker; Report i107f; Thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 01/10/2020.*

A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

A5 Installation requirements

Only to be installed in accordance with BR-005, August 2023 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings.

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Condensation Management Provisions A5G3(1)(f). Installation manual provides documentary evidence form of construction or design fulfils specific requirements of the BCA.
2. Energy Efficiency Provisions A5G3(1)(e). Reports from a professional engineer or an appropriately qualified person.
3. Fire Safety Provisions A5G3(1)(e). Report from a professional engineer or an appropriately qualified person.
4. Structural Resistance Provisions A5G3(1)(e). Certificate from a professional engineer or an appropriately qualified person.
5. Weatherproofing Provisions A5G3(1)(e). Report from a professional engineer or an appropriately qualified person.

B2 Reports

1. AECOM Australia Pty Ltd; Hebel 50mm and 75mm Panels – External Cladding for Low and High Rise Buildings; Dated 11/04/2022. Letter provides evidence of weatherproofing compliance for 50mm AAC external wall systems with F3P1 and H2P2.
2. PACE Structural Pty Ltd; File No. PS23040; Structural Design Certificate; Dated 25/10/2024. Certificate provides confirmation of compliance of the design capacity calculations of 50mm MaxiWall House & Low Rise Multi-Residential Buildings External Wall System with BCA requirements of B1P1(1),(2)(a), (b),(c) & (d) & H1P1(1),(2)(a), (b),(c) & (d).
3. IGNIS Labs Pty Ltd; Report No. IGNL-7294-99R I01R01; Hebel External Wall or Floor Compliance; Dated 24/10/2023. Report outlines the fire resistant levels that the 50mm AAC external wall systems achieve as per requirement of C2D2(2) & H3D4.
4. James M Fricker Pty Ltd; Report Number. i107f; Thermal performance calculations to AS/NZS 4859 Parts 1 & 2:2018; Dated 01/10/2020. Report provides Thermal Calculations for the wall system that can be used with other building elements to achieve a Total R-Values for compliance with J4D6 and H6D2(1)(b)(i).
5. Big River Installation Manual BR-005 - MaxiWall 50mm (Vertical) House & Low-Rise Multi-Residential Buildings; August 2023. Document provides evidence for compliance with F8D3 and H4D9.

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