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:

United Building Supply Pty Ltd
ABN: 670370528
12/75 Endeavour Way
Sunshine West, Victoria 3030
Australia
P: +61 416 557 888
Email:
Info@unitedbuildingsupply.com.au

Certificate number: CM40418

THIS IS TO CERTIFY THAT

Pro Panel Houses and Low-Rise Multi-Residential Party Wall System – Vertical 50/75mm AAC

Type and/or use of product:

Party Wall System for residential and commercial buildings.

Description of product:

Low-Rise Party Wall comprising several proprietary components including non-load bearing steel reinforced Autoclaved Aerated Concrete (AAC) panels.

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

	Volume One		Volume Two	
Performance Requirement(s):	F7P2	Contributes to sound transmission through walls – Refer A3	H4P6	Contributes to sound insulation– Refer A3
	F7P4	Contributes to sound transmission through walls in a residential care building – Refer A3		
Deemed-to-Satisfy Provision(s):	B1D4(1)(ii)	Determination of structural resistance	H1D7(4)(a)	Structure – Roof and wall cladding
	C2D2(2)	Fire resistance and stability - FRLs	H3D4	Fire protection of separation walls
	C2D10(5)(e)	Non-combustible building elements – limited to the Panel only		
	C2D11(3)	Fire hazard properties – Group Number		
State or territory variation(s):	G5D3 NSW		H7D4 NSW, QLD & SA	

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. The Pro Panel Houses and Low-Rise Multi-Residential Party Wall System must be installed in accordance with the Houses and Low-Rise Multi-Residential Party Wall System Design & Installation Guide Vertical 50/75mm AAC Version 1 / July 2024.
2. Fire Resistance Levels (FRLs) compliance is outlined in *A3 Product specifications* and is dependent on the system being constructed in accordance the Houses and Low-Rise Multi-Residential Party Wall System Design & Installation Guide Vertical 50/75mm AAC Version 1 / July 2024. Any deviation from the assessed system does not form part of this certificate of conformity.

Building classification/s:

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

Richard Donarski – CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 18/10/2024

Date of expiry: 18/10/2027

3. The structural certification does not include the sub-structure. The structural support members are designed and engineered separately as per project requirements by building designers and engineers. It is a requirement that the Pro Panel Houses and Low-Rise Multi-Residential Party Wall System is fixed to a structurally adequate wall frame in accordance with the Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024. In all cases the wall frame must be either;
   a) A timber frame constructed in accordance with AS 1720.1, from minimum MGP10 with minimum stud depth of 70 mm x 45mm thick; or
   b) A cold-formed steel frame constructed in accordance with AS/NZS 4600, minimum stud depth of 70 mm minimum 0.55mm BMT; or
   c) Framework compliant with the above minimum requirements and other standards, and the Building Code of Australia as applicable.
4. Pro Panel Houses and Low-Rise Multi-Residential Party Wall System – Vertical 50/75mm AAC is considered to constitute discontinuous construction and is not otherwise penetrated by any building services when installed in accordance with Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024. where discontinuous construction is defined in the BCA as a wall system having a minimum 20 mm cavity between two separate leaves.
5. 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.

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

PRO PANEL (VERTICAL) 50/75mm AAC Low-Rise Party Wall System consists of 50mm or 75mm thick AAC panels screwed to either steel or timber wall framing through horizontal light-gauge steel top-hat battens & breathable wall wrap. AAC Panels are suspended from framing for all non-ground floor applications.

System Components

Panels:

50mm AAC Panel

Thickness:	**50mm**
Width:	600mm
Lengths:	1800, 2200, 2400, 2550, 2700, 2850, 3000mm
Reinforcement:	Single layer steel mesh, centrally located.
Steel bars:	4 x Ø 5mm longitudinal bars and 6-8 x Ø 5mm transverse bars (@<550mm spacing) depending on panel length.

75mm AAC Panel

Thickness:	**75mm**
Width:	600mm
Lengths:	1800, 2400, 2550, 2700, 2850, 3000mm
Reinforcement:	1800 to 3000mm single layer steel mesh, centrally located.
Steel bars:	4 x Ø 5mm longitudinal bars and 6-8 x Ø 5mm transverse bars depending on panel length.

Battens

For vertical panel orientation, battens shall be light gauge steel sections not less than 24mm deep x 30mm wide x 0.42 mm BMT Top Hat, Grade (G550) or equivalent, conforming with AS/NZS 4600. Cold-formed sections and accessories shall be manufactured from AM150, Z275 or AZ150 galvanized steel (Grade G550) conforming with AS 1397.

Panel Screws

To fix PRO PANEL 50mm or 75mm AAC panel to light gauge steel batten from outside the building, 14–10 Bugle Head or Hex Head Type 17 screw (Class 3 or 4). Screw length shall be 15mm longer than the panel thickness.

To fix PRO PANEL 75mm AAC panel to light gauge steel top hat batten from inside the building, 14–10 Hex Head Type 17 screw (Class 3 or 4). Screw length shall be 10mm shorter than the panel thickness.

Screws shall be:

a) a) at least Class 3 for moderate and mild exposure environments;
b) b) at least Class 4 for severe marine further than 100m from breaking surf, marine and industrial exposure environments; and
c) c) Class 4 stainless steel for severe marine exposure environments within 100m of breaking surf.

Batten Screws

Timber Frame: 12–11 x 35mm Hex Head Type 17 screw (Class 3 or 4), 2 per stud.

Steel Frame: 10–16 x 16mm Hex Head Self-drilling screw (Class 3 or 4), 2 per stud.

Screws shall be:

a) at least Class 3 for moderate and mild exposure environments;
b) at least Class 4 for severe marine further than 100m from breaking surf, marine and industrial exposure environments; and
c) Class 4 stainless steel for severe marine exposure environments within 100m of breaking surf.

Thin Bed Adhesive

The thin-bed adhesive shall have a characteristic tensile strength equal to or greater than the characteristic tensile strength of the AAC, and be C1E classification in accordance with AS ISO 13007.1.

Backing Rod

The 'backing rod' shall be a minimum of 10mm wide and shall consist of an expanded polystyrene tube or bead.

A3 Product specification

Structural reliability – Resistance to wind actions (B1D4(1)(ii) & H1D7(4)(a))	The Pro Panel (vertical) 50mm/75mm AAC Party Wall System has been appraised for Party wall applications when constructed in accordance with *Section 6 Installation* of the *Pro Panel, Houses and Low-Rise Multi-Residential, Part Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024*. The construction details outlined in *Section 6 Installation* of the *Pro Panel, Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024* are in accordance with the requirements of AS 5146.3, the maximum Design Ultimate Limit State Wind Pressures of the Pro Panel (vertical) 50mm/75mm AAC Party Wall System and compliant with are described for 50mm thickness panels in Tables 1, 2, 3, 4, 5 & 6, and for 75mm thickness panels in Tables 7, 8, 9, 10, 11 & 12. ***Source:*** *Acronem Consulting Report ACA 240503 dated 09/10/2024 and Pro Panel, Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024*

Fire resistance Level (C2D2(2) & H3D4)	The FRL performance of Pro Panel (vertical) 50mm/75mm Party Wall System has been verified by prototype testing and an assessment performed by an Accredited Testing Laboratory in accordance with the requirements of AS 1530.4:2014 and as detailed in the Pro Panel, Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024 and assessed as having the capacity to maintain an FRL of 60/60/60, 90/90/90 or 120/120/120 as applicable to the application.
	
	The PRO PANEL (VERTICAL) 50/75mm AAC Low-Rise Party Wall System with:
	
	- PRO PANEL (VERTICAL) 50/75mm AAC, mechanically fixed to either steel or timber wall framing (by others) using aluminium wall brackets attached only to the top and bottom plates such that there is no continuous construction across the cavity.
	- The brackets must be angles not smaller than 76 mm x 43 mm x 50 mm in size and fabricated from a minimum of 1.6 mm thick Grade 5005 aluminium.
	- Fixings (Nails & Screws).
	  i. To fix aluminium bracket to top and bottom plate:
	  – For timber plates, 2/25 x 2.5 mm galvanized nails or 2/12–11 x 35 mm hex head type 17 screws (Class 3 or 4).
	  – For steel plates, 2/10–16 x 16 mm wafer head/hex head screws (Class 3 or 4).
	  ii. To fix aluminium bracket to PRO PANEL 50/75mm AAC panel:
	  – 2/14–10 Hex Head screws (Class 3 or 4). Screw length shall be 10 mm shorter than the panel thickness.
	- Screws shall be:
	  i. at least Class 3 for moderate and mild exposure environments.
	  ii. at least Class 4 for severe marine further than 100 m from breaking surf, marine and industrial exposure environments; and
	  iii. Class 4 stainless steel for severe marine exposure environments within 100 m of breaking surf.
	- Wall framing either timber framing 70x45 mm MGP10, or light-gauge steel framing (min. 0.55mm BMT) compliant with the relevant framing code.
	- R2.0, 70mm, 10.3kg/m3 Glasswool Batt Insulation
	- Min. 10mm thickness Standard Grade Plasterboard fixed with stud adhesive, paper tape 6gx25mm bugle head needle point screw
	- Horizontal joints shall be made with either;
	  i. Continuous steel channel, 76 x 32 x 0.75mm BMT or 76 x 50 x 0.70mm Deflection Track or J-Track, fixed back-to-back with 10-16 x 16mm wafer head screws at 600mm max. ctrs, with 16mm fire rated plasterboard fixed to panel with 10 x 50mm bugle head laminating screws at 400mm max. ctrs. on one side, or
	  ii. 100mm wide, 13mm thick, mineral fibre strips with a density of not less than 110kg/m3
	  iii. Maximum wall height of 12.0m.
	
	Source: *Acronem Consulting Report ACA 240503 dated 09/10/2024 & Warringtonfire Aus Pty Ltd; Report No. FRT 230165 Revision 1.0 dated 25/01/2024 & Assurance Construction Testing and Certification Pty Ltd Report number: ACTC-8329-99R-01R I02R01 dated 18/08/2024.*

Non-combustible (C2D10)	The Pro Panel Houses and Low-Rise Multi-Residential Party Wall System uses Pro Panel 50mm and 75mm panels are suitable for use where non-combustible materials are required in accordance with C2D10(6)(d) and H3D2(1)(d) of the Building Code of Australia as autoclaved aerated concrete that complies with AS 5146.1, AS 5146.2 and AS 5146.3. ***Source:*** *Acronem Consulting Report ACA 240503 dated 09/10/2024.*
Fire Hazard Properties (C2D11(3))	The 50mm and 75mm Pro Panel meets the requirements of C2D11(3) as autoclaved aerated concrete that complies with AS 5146.1, AS 5146.2 and AS 5146.3. ***Source:*** *Acronem Consulting Report ACA 240503 dated 09/10/2024.*

Sound transmission and insulation

(F7P2, F7P4 & H4P6)

The airborne sound insulation performance of the Pro Panel (vertical) 50mm/75mm Party Wall System configurations are tabled below.

Min. Pro Panel Thickness (mm)	Plasterboard (each side)	Min. Stud Depth (mm)	Frame-Panel Gap (mm)	Rw (dB)	Rw+Ctr (dB)
50	1 x 13mm fire- rated/acoustic/water- resistant	70	20	65	50
50	1 x 13mm standard	70	40	65	51
50	1 x 13mm standard	90	20	65	51
75	1 x 13mm standard	70	20	64	50

Source: *Acronem Consulting Report ACA 240503 dated 09/10/2024.*

A4 Manufacturer and manufacturing plant(s)

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

A5 Installation requirements

Pro Panel Houses and Low-Rise Multi-Residential Party Wall System – Vertical 50/75mm AAC must be installed in accordance with the Pro Panel, Houses and Low-Rise Multi-Residential, Party Wall System, Vertical 50/75mm AAC, Design & Installation Guide, Version 1, July 2024.

A6 Other relevant technical data

Energy Efficiency

Total R-values of Pro Panel (vertical) 50mm/75mm AAC Party Wall System have been determined including the effects of thermal bridging in accordance with AS/NZS 4859.1:2018.

Pro Panel (Vertical) 50/75mm AAC Party Wall System (with R2.0, 70mm batts)		Total R-values (m2.K/W)	
		Winter (Heat flow outwards)	Summer (Heat flow inwards)
50mm	Timber Frame	4.5	4.3
	Steel Frame	3.8	3.6
75mm	Timber Frame	4.7	4.5
	Steel Frame	4.1	3.9

Source: *Acronem Consulting Report ACA 240503 dated 09/10/2024*

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Acoustic Provisions A5G3(1)(e). A report from a professional engineer.
2. Fire Safety Provisions A5G3(1)(d)&(e). A report issued by an Accredited Testing Laboratory & reports from a professional engineer.
3. Structural Resistance Provisions A5G3(1)(e). A report from a professional engineer.

B2 Reports

1. Acronem Consulting Australia Pty Ltd; Report No. ACA 240503; Pro Panel (Vertical) 50mm/75mm AAC Houses And Low-Rise Multi-Residential Party Wall System NCC 2022, Volumes One, Two & Housing Provisions – Party Walls; Dated 09/10/2024. This report provides evidence and validates the below test reports for compliance with; B1D4(1)(ii), C2D2(2), C2D10, C2D11(3), F7P4 , H1D7(4)(a), H3D4 and H4P6. This reports references and validates the following documents:
   a. Warringtonfire Aus Pty Ltd; NATA Accreditation No. 3277; Report No. FRT 230165 Revision 1.0; Fire Resistance Test Report, 50 mm AAC Load Bearing Wall Panels Dated 25/01/2024. Report provides evidence of FRLs for compliance with C2D2(2) & H3D4.
   b. Assurance Construction Testing and Certification Pty Ltd; IAS Accreditation No. TL-1162; Report number: ACTC-8281-99R-01R I02R00; Fire assessment report: UBS PRO PANEL Party wall systems in accordance with AS 1530.4:2014; Dated 31/07/2024. Report provides evidence of FRLS for compliance with C2D2(2) & H3D4. G5D3 & H7D4(2)(a)
   c. DDGE; Pro Panel (vertical) 50mm/75mm AAC Party Wall System Acoustic Evaluation Report; Dated 30/08/2024. Calculations are in accordance with F7P4 and H4P6.
   d. Acronem Consulting Australia Pty Ltd; Calculation Numbers: W240820a, W240820b, W240820c, W240820d; Calculation of Total Thermal Resistance, United Building Supply, Pro Panel (vertical) 50mm/75mm AAC Party Wall System, (R2.0 batts, 70x45mm timber studs at 450mm centres &10mm plasterboard; Dated 20/08/2024.

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