



# Certificate of Conformity

Certificate number: CM40049

**Certification Body:**

**CertMark**  
International  
ABN: 80 111 217 568  
JAS-ANZ Accreditation  
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**Certificate Holder:**

Hebel®  
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**THIS IS TO CERTIFY THAT**

## Hebel® PowerPanel XL Wall System

**Type and/or use of product:**

Wall Cladding System for Houses & Low Rise Multi-Residential External Walls is certified as a propriety walling system.

**Description of product:**

Steel reinforced Autoclaved Aerated Concrete (AAC) panel wall cladding system, available in various configuration, that incorporates several components. Refer A2 below.

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

**BCA 2019**

	Volume One	Volume Two
<b>Performance Requirement(s)</b>	BP1.1(a), Structural Provisions (b)(i)(ii)(iii)  FP1.4 Damp and Weatherproofing  JP1 Energy Efficiency – Refer A5	P2.1.1(a), Structural Stability and Resistance to Actions (b)(i)(ii)(iii)  P2.2.2 Weatherproofing  P2.4.6 Sound Insulation – Refer A5  P2.6.1 Energy Efficiency – Refer A5
<b>Deemed-to-Satisfy Provision(s):</b>	C1.1(b) Fire Resistance and Stability – FRL varies, dependant of the configuration of the wall. Refer condition and limitation 5.  F6.2(a)(i) Condensation Management - Pliable building membrane.	3.7.2.4(b) Protection from the Spread of Fire - FRL varies, dependant of the configuration of the wall. Refer condition and limitation 5.  3.8.7.2(a)(i) Condensation Management - Pliable building membrane.
<b>State or territory variation(s):</b>	JP1 NSW, NT, Qld	P2.4.6 NT; P2.6.1 Vic, NSW, NT

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

**Limitations and conditions:**

- The use of the Hebel® PowerPanel XL Wall System must be supported by a site specific Performance Solution (other than CV3) where the BCA, inclusive of Clause C1.9 and C1.14, requires building elements and/or ancillary elements to be non-combustible in Type A and B construction. Acceptance or otherwise of the site specific performance solution is at the discretion of the appropriate authority subject to the regulatory framework of the relevant state or territory.
- The 75mm Hebel® PowerPanel XL has not been tested and certified for impact loading from windborne debris in Region C and D as denoted in AS1170.2:2011. The building designer should take into consideration internal pressure resulting from dominant openings.
- Hebel® PowerPanel XL Wall System is suitable for wind categories from N1 to N5 and C1 to C3. Consult [The Houses and Low Rise Multi-Residential External Walls \(PowerPanel XL Panel\) Design and Installation Guide HELIT016APRIL19](#) for relevant construction requirements.

**Building classification/s:**

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

**John Thorpe - CMI**

**Don Grehan – Unrestricted Building Certifier**

**Date of issue:** 01/05/2019

**Date of expiry:** 01/05/2022



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4. Hebel® PowerPanel XL Wall systems are suitable for two stories, or higher subject to design and certification of the stud frame by a qualified structural engineer.
5. Depending on the system configuration, the Hebel® PowerPanel XL Wall System can achieve an FRL of maximum 90/90/90 mins. Refer to [The Houses and Low Rise Multi-Residential External Walls \(PowerPanel XL Panel\) Design and Installation Guide HELIT016APRIL19](#) figures 3.6.4.1, 3.6.5.6, 3.6.7.1, 3.6.7.2, 3.6.7.5, 3.6.7.9, and 3.6.7.10 for confirmation of configurations and results.
6. Only Enviroseal RW wall wrap is permitted to be used Climate zones 6, 7 and 8.
7. 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](http://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.

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. This may result in the product being classified as a non-conforming building product.

**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, CertMark International 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

#### Components

Product	Description
Hebel® PowerPanel XL panel	The Hebel® PowerPanel XL is a 75mm thick AAC panel with a minimum nominal dry density of 400kg/m <sup>3</sup> and up to 3300mm length, installed vertically to timber or steel framing via horizontal top hats.
Top Hat	The Top Hats are used to fix the Hebel® PowerPanel XL panel to the structural support framing. There are two nominal widths available: 24mm and 35mm - incorporating perforated flanges for ease of installation onto external wall frames.
Fasteners & Fixing	Fixing of Top Hat to timber stud frame; 12-11x35mm Hex Head Type 17 screw.
	Fixing of Top Hat to steel framing; 10-16x16mm Hex Head Tek screw.
	Fixing of Hebel® PowerPanel XL to top hat 14-10x90mm Hex Head Type 17 screw.
	Fixing of Hebel® PowerPanel XL panels to Top Hat from inside of buildings 14-10x65mm Hex Head Type 17 Screw (Boundary walls only). Fixing of Hebel® PowerPanel XL panels to Top Hat from inside of buildings; 14-10x65mm Hex Head Type 17 screw (Zero Boundary walls only).
Hebel® Mortar	Hebel® Mortar (supplied in 20kg bags) when required is used as a thick bed mortar base to provide a level base for Hebel® PowerPanel XL installation as well as providing acoustic and fire protection at the base of the panels.
Hebel® Adhesive	Hebel® Adhesive (supplied in 20kg bags) is used for gluing the Hebel® PowerPanel XL panels together at vertical and horizontal joints.
Hebel® Patch	Minor Chips or damage to Hebel® PowerPanel XL panels are to be repaired using Hebel® Patch (supplied in 10kg bags).
Hebel® Anti Corrosion Protection Paint	To coat reinforcement steel that has been exposed during cutting of the panels.
Hebel external Aluminium Render Bead (optional)	Hebel external Aluminium Render Bead is used to provide neat and consistent horizontal control joints.
Hebel Direct Fix Clip	For attaching top hat to structural stud frame (Zero Boundary applications only).
Wall Wrap	Enviroseal RW or Thermosteal wall wrap XP.

#### Hebel® PowerPanel XL Panel Physical Properties

Panel reinforcement is a single layer of steel mesh with 4 longitudinal wires of 4mm diameter.

Nominal dry density = 400kg/m<sup>3</sup>.

Average working density = 540kg/m<sup>3</sup> at 35%

Average service life density = 440kg/m<sup>3</sup> at 10% moisture content.

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Panel weight (kg)		
Length (mm)	Width (mm)	Weight (kg) at 35% M.C.
2400	600	58
2550	600	62
2700	600	66
2800	600	68
2850	600	69
3000	600	73
3300	600	80

### A3 Product specification

The properties of the wall systems relevant to the Hebel® PowerPanel XL Wall 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 [Houses and Low Rise Multi-Residential External Walls \(Hebel® PowerPanel XL panel\) Design and Installation Guide HELIT016APRIL19](#). This Installation guide provides guidance on:

- Structure
- Designing & detailing considerations
- Systems components
- Durability
- Fire resistance
- Energy efficiency
- Sound transmission and insulation
- Coating requirements
- Weatherproofing
- Installation requirements.

### Fire Resistance Levels

Depending on the system configuration, the Hebel® PowerPanel XL Wall System can achieve an FRL of maximum 90/90/90 mins. Refer [Houses and Low Rise Multi-Residential External Walls \(Hebel® PowerPanel XL panel\) Design and Installation Guide HELIT016APRIL19](#) figures 3.6.4.1, 3.6.7.1, 3.6.7.2, 3.6.7.5, 3.6.7.9, 3.6.7.10.

HELIT016APRIL19 Figures	FRL
3.6.4.1	90/90/90
3.6.7.1	-/120/120
3.6.7.2	-/120/120
3.6.7.5	-/120/120
3.6.7.9	-/120/120
3.6.7.10	-/120/120

## A4 Manufacturer and manufacturing plant(s)

CSR Hebel®  
112 Wisemans Ferry Rd,  
Somersby NSW 2250.

## A5 Installation requirements

1. Only to be installed in accordance with [The Houses and Low Rise Multi-Residential External Walls \(PowerPanel XL Panel\) Design and Installation Guide HELIT016APRIL19](#) section 3.5 & 3.6.
2. The Acoustic performance of Hebel® PowerPanel XL Wall System will vary with installation configurations, refer to Table 2.4.1 & 2.4.2 of [HELIT016APRIL19](#).
3. The Thermal R values of the Hebel® PowerPanel XL Wall System will vary with installation configurations refer to Table 2.3.4 & 2.3.5 of [HELIT016APRIL19](#).
4. The Hebel® PowerPanel XL Wall System is only to be installed by a suitably qualified tradesperson or a builder.
5. The panel wall is constructed using maximum 3300mm x 600mm x 75mm thick Hebel® PowerPanel XL panels with a minimum nominal dry density of 400kg/m<sup>3</sup>.
6. The timber framed wall system is designed for a load calculated in accordance with the requirements of the relevant timber frame design codes, with no load shedding permitted to the Hebel® PowerPanel XL.
7. The maximum wall height per level is restricted to 3300mm for a fire rated wall, with the steel tophat sections spaced at maximum 1200mm centres over the panel height.
8. An approved fire rated mastic may be substituted for the Hebel® Mortar for gaps larger than 3mm in width at the base of the panels when used in conjunction with a concrete slab rebate.
9. Where Hebel® PowerPanel are provided with a steel shelf angle fixed to the vertical face of the concrete slab, to provide protection to the wall cavity, an approved fire rated mastic is to be applied to all gaps at the base of the panels and between the steel shelf angle and the vertical face of the concrete slab. The steel shelf angle is required to have a horizontal angle leg length of 75mm (BMT 1.2) with a minimum of 40mm cover to the bottom of the Hebel® PowerPanel. The steel shelf angle is to be kept to a minimum of 15mm clear of the timber bottom plate.
10. The maximum wall height per level may be either supported at the base by a slab edge rebate, shelf angle or similar, and upper storey panels may be considered to be suspended from the frame.
11. All relevant detailing on site to be in accordance with Hebel Houses and Low Rise Multi Residential PowerPanel XL External Walls – Design and Installation Guide (HELIT016APRIL19).
12. Stud wall support frame to be designed and certified by others.

## A6 Other relevant technical data

### Bushfire

The 75mm Hebel® PowerPanel XL Wall System can contribute to satisfying the NCC Performance Requirements for the construction of buildings in bushfire prone areas up to BAL - FZ, where the configuration achieves an FRL of 30/30/30 or -/30/30 in accordance with AS 3959:2018 clause (9.4.1). Refer to The Houses and Low Rise Multi-Residential External Walls (Hebel® PowerPanel XL Panel) Design and Installation Guide HELIT016APRIL19, for further information.

## APPENDIX B – EVALUATION STATEMENTS

### B1 Evaluation methods

1. Acoustic provision A5.2(1)(e). Reports from Qualified Professional Engineer.
2. Weatherproofing A5.2(1)(e). Reports from Qualified Professional Engineer.
3. Thermal provision A5.2(1)(e). Reports from Qualified Professional Engineer.
4. Fire safety provision A5.2(1)(d) & (e). Reports from Accredited Testing Laboratories and Qualified Professional Engineer.
5. Structural Provision A5.2(1)(e). Reports from Qualified Professional Engineer.



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## B2 Reports

- a. Acoustic Logic; Report number 20140366.34/1909A/RW/GW; Acoustic performance assessment; Dated 19/09/2017.
- b. CSIRO; NATA Accreditation 165; Ref No. FCO-3003/SP3672; FRL assessment, professional opinion; Dated 13/04/2016.
- c. CSIRO; NATA Accreditation 165; Ref No. FCO-3003/CO4942; Assessment Review renewal letter for report FCO-3003; Dated 28/05/2018, Expires 31/05/2023.
- d. PACE Structural; File PS18153; Structural Design Certificate; Dated 23/04/2019.
- e. James M Fricker Pty Ltd; Report i107e; Thermal performance calculations; Dated 24/06/2018.
- f. CSIRO; NATA Accreditation 165 (not accredited testing for this standard); Report number DTF1021; Weatherproofing testing to AS/NZS 4284:2008; Dated 27/01/2015.
- g. AECOM; Ref: FAC - B14; Assessment of CSIRO Weatherproofing report above; Dated 26/02/2015.
- h. WarringtonFire NATA Accreditation 3277; report 27915.21 dated 17/12/2018.

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