# 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:**

CSR Hebel®
ABN: 55 008 631 356
Triniti 3, 39 Delhi Rd
North Ryde, NSW 2113
Locked Bag 1345,
North Ryde BC
NSW 1670
Australia
P: 1300 712 896
www.hebel.com.au


**Certificate number: CM40048**

THIS IS TO CERTIFY THAT

## Low Rise Multi-Residential Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Wall System

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

Intertenancy Wall System for load bearing and non-load bearing intertenancy / party walls in low rise multi-residential projects.

**Description of product:**

Hebel® 75mm PowerPanel$^{XL}$ Low Rise Multi-Residential Inter-tenancy Wall System is a steel reinforced Autoclaved Aerated Concrete (AAC) Panel for use in discontinuous wall structures. Refer A2.

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 reliability and resistance to actions |
| | F7P2 | Sound transmission through walls - Can be used in conjunction with other building elements to achieve minimum sound insulation ratings. | H4P6 | Sound Insulation - (can be used in conjunction with other building elements to achieve minimum sound insulation ratings) |
| | F7P4 | Sound transmission through walls in a residential care building – Can be used in conjunction with other building elements to achieve minimum sound insulation ratings. | | |
| **Deemed-to-Satisfy Provision(s):** | C2D2(2) | Fire resistance and Stability – Refer A3 for FRL Systems. | H3D2 | Non-combustible building elements limited to the Hebel® PowerPanel$^{XL}$ Panel only. |
| | C2D10 | Non-combustible building elements limited to the Hebel® PowerPanel$^{XL}$ Panel only. | H3D4 | Fire protection of separating walls – Refer A3 for FRL Systems. |
| **State or territory variation(s):** | Part F7 (NT) | | H4P6 (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:**

1. Compliance with FRL is dependent on the system components being as specified in A3. Any deviation from the tested specimen 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:** 20/07/2023

**Date of expiry:** 29/04/2025

ABCB

JAS-ANZ

2. The system is suitable for use as a fire separating wall system between fire compartments in sole-occupancy units only and must not be used for the support of fire-rated floors, ceilings or roofs that provide vertical fire separation i.e. Class 2 buildings.
3. The timber frames shall be designed in accordance with AS 1720.1:2010 or AS 1684-2010 series, or steel frames in accordance with AS 3623:1993(R2018) or AS/NZS 4600:2018.
4. The gap between the framing and the Hebel® PowerPanel$^{XL}$ widths may be a minimum of 10mm.
5. The panels may only be used in wind category N1, N2 and N3.
6. The installation of the Hebel® 75mm PowerPanel$^{XL}$ Low Rise Multi-Residential Intertenancy Wall System must not deviate from the contents of the Low Rise Multi Residential 75mm PowerPanel$^{XL}$ Intertenancy Walls Design and Installation Guide HELIT013June23.
7. Project specific load bearing capacities for internal load bearing walls must be configured by the project engineer.
8. Any cantilevered party wall must be examined by structural engineers engaged by others, not part of this assessment, to ensure that the wall is adequately supported and that there is no additional load that would introduce deflections at various locations that could have a detrimental impact on the structural adequacy of the wall when exposed to fire on either side.
9. 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**

Hebel® 75mm PowerPanel$^{XL}$ Low Rise Multi-Residential Intertenancy Wall System consists of the following components:

| Product | Description |
|---|---|
| **Hebel® 75mm PowerPanel$^{XL}$ panel** | The core component of Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Wall Systems is the 75mm thick, steel mesh reinforced Hebel® PowerPanel$^{XL}$ panel. The panel is manufactured in a range of stock sizes as detailed below: |

| 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 |

**Note:** Average panel weight calculated at 35% moisture content.

| | |
|---|---|
| **Hebel® Deflection Head Track** | For positioning and restraining the base connection of the panels to the concrete slab. |
| **Hebel® Wall Brackets** | The brackets are proprietary components which enable the Hebel® 75mm PowerPanel$^{XL}$ to be fixed to the wall frame. This provides a cavity space, which can result in increased acoustic insulation performance. The bracket is nominally 75 x 40 x 1.6mm x 50mm wide aluminium angle. Used in Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Discontinuous Wall Systems. |
| **Hebel® Top Hat** | The Top Hats are used to fix the Hebel® 75mm PowerPanel$^{XL}$ panel to the structural support framing. There are two nominal widths available: 24mm and 35mm – incorporating perforated flanges for ease of installation. |
| **Hebel® Adhesive** | Hebel® Adhesive is used for bonding the panels together at vertical joints. Supplied in 20kg bags. |
| **Hebel®l Mortar** | Hebel® Mortar is used to provide a level base for panel installation as well as providing acoustic and fire protection at the base of the panels. Used in some Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Discontinuous Wall base arrangements. Supplied in 20kg bags. |
| **Hebel® Patch** | Minor chips or damage to Hebel® 75mm PowerPanel$^{XL}$ panels are to be repaired using Hebel® Patch (supplied in 10kg bags). |
| **Hebel® anti-corrosion protection paint** | To coat exposed reinforcement during cutting. |
| **Bradford Insulation** | The Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Wall System incorporates Bradford Insulation materials. |
| **Gyprock™ Plasterboard** | The Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Discontinuous Wall System incorporates Gyprock™ Plasterboard on both sides. |
| **Fire & Acoustic Sealant** | To attain the specified FRL and / or $R_W$ requirements, all perimeter gaps and penetrations must be carefully and completely sealed with a polyurethane fire and acoustic rated sealant installed to manufacturer's specifications. |
| **Backing Rod** | Backing rod is used to enable correct filling of joints with sealant. It is recommended that backing rod be of open cell type to enable sealant to cure from behind. The diameter of backing rod must be appropriate for the width of the gap being filled. |

# Certificate of Conformity

**A3 Product specification**

**Non-Combustibility**

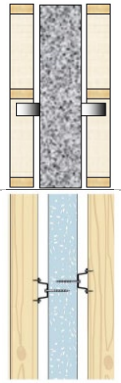
The certificate holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for Hebel® 75mm PowerPanel$^{XL}$ panel– Autoclaved Aerated Concrete (AAC) of density 400kgm$^3$.

**The material is NOT deemed combustible - Limited to the panel only.**

***Source:*** *CSIRO; NATA Accreditation No. 165; Report No. FNC12490 dated 11/11/2019.*

**Fire Protection of Separating Walls (Fire Resistant Levels – FRLs)**

Depending on the configuration, FRL can be achieved as set out below.

| Description | Central Core | Framing | Lining | Fixings | Outcome |
|---|---|---|---|---|---|
|  | 75mm CSR Hebel® PowerPanel$^{XL}$ | Loadbearing or non- loadbearing timber or steel framing | No lining required | Aluminium clips | 12 m high (max)<br>FRL 90/90/90 or FRL -/90/90 |
| | | Loadbearing or non-loadbearing timber framing only | | Steel batten (24 mm Hebel® Top hats) at 1200 mm centres* | 16.5 m high (max)<br>FRL 60/60/60 or FRL -/60/60 |

*Used in cantilevered wall systems only. Overall wall height would be lower than that prescribed in the outcome due to the absence of lower-level floors.

**Internal Linings**

The proposed internal linings are to be installed by traditional glue and nail/screw fixing methods and must be either;

- Sound Grade Plasterboard (10mm & 13mm)
- Moisture Grade Plasterboard (10mm & 13mm)
- Standard Plasterboard or GIB board minimum 5.7kg/m$^2$ (10mm & 13mm)
- Fire Grade Plasterboard (10mm & 13mm)
- Fibre Cement (6mm & 9mm)

**Aluminium Clip Connecting Hebel® 75mm PowerPanel$^{XL}$ Core to Structural frames**

The Hebel® PowerPanel$^{XL}$s are secured to the structural frame on both sides of the central core by 70 mm × 40 mm × 1.6 mm thick aluminium clips that are 50 mm wide. The aluminium clips are on each side of each panel, top and bottom, and spaced at maximum 3000 mm centres vertically. Clips must be not more than 600 mm apart horizontally and located within the central 300 mm portion of the 600 mm wide Hebel® panel. Ie the distance from the aluminium clip to the vertical joints must be not less than 150 mm.

The aluminium clips are screw fixed to the Hebel® 75mm PowerPanel$^{XL}$ with two No 12-8 × 60 mm long or two No 12 11 × 50 mm long Hex Head Type 17 screws. The aluminium clips are fixed to the timber framing with two minimum 25 mm long hot dipped galvanised steel nails or 2 × No 12-11 × 25 mm long Hex head screws. The aluminium clips must be fixed to steel framing with two 10-16 × 16 mm long wafer head screws.

| | |
|---|---|
| | For Hebel® 75mm PowerPanel$^{XL}$ intertenancy walls, the aluminium brackets used on either side of the panel do not require to be aligned with each other. In cases where the floor joist on one unit is higher than the other unit, the panels are acceptable to be fixed where the brackets on each side of the panel are not aligned. The brackets can be fixed to the top and bottom plates of stud frames on each side. The criteria below must be met in the installation of the panels:<br>– the bracket to panel joint on each side does not exceed 600 mm. and;<br>– the brackets are fixed to studs or nogging on each side of the panel and;<br>– the maximum bracket fixing spacing for ground floor panels does not exceed 3000 mm. |
| **Structural Timber Framing** | The structural timber framing is to be designed in accordance with AS 1684-2010 and AS 1720.1-2010. Minimum timber size is to be 70x35mm with a 10mm to 35mm separation from the Hebel® 75mm PowerPanel$^{XL}$ Panels. A nogging is to be provided at the clip positions to facilitate fixing to the frame if a plate is not present at the required position. To aid in construction of the wall system a steel batten may be fixed to one or both of the frames to space the panels from the frame correctly. In no cases are the battens to be fixed to the panels |
| **Structural Steel Framing** | The structural steel framing can be made from light gauge steel designed in accordance with AS 3623-1993(R2018) or AS 4600:2018. Minimum BMT for light gauge steel shall be 0.5mm with a 10mm to 35mm separation from the Hebel® 75mm PowerPanel$^{XL}$ Panels. A nogging is to be provided at the clip positions to facilitate fixing to the frame if a plate is not present at the required position. To aid in construction of the wall system a steel batten may be fixed to one or both of the frames to space the panels from the frame correctly. In no cases are the battens to be fixed to the panels. |
| **Horizontal Joints in Central Hebel® 75mm PowerPanel$^{XL}$ Core** | The sealant must be applied to both sides of the wall and achieve a fire resistance level (FRL) of -/90/90 when tested or assessed for protecting a joint in a 75 mm CSR Hebel® 75mm PowerPanel$^{XL}$.<br>The sealant must be applied to one side of the wall and achieve a fire resistance level (FRL) of -/60/60 when tested or assessed for protecting a joint in a 75 mm CSR Hebel® 75mm PowerPanel$^{XL}$.<br>Bradford Fibertex 820 plain strips may be used instead of Fireseal Damper Strip for applications where the latter has been prescribed in this report. |
| **Variation to Gap Between Frame and Panel** | The proposed range of gap is from 10mm to 20mm. The smallest gap allows a minimum wall footprint, whereas the larger thickness allows variation to meet and intersect other walls and remain at the same thickness. |
| **Vertical Joints in Central Hebel® 75mm PowerPanel$^{XL}$ Core** | The sealant must be applied to both sides of the wall for -/90/90 applications and must have been tested or assessed for protecting a joint in 75 mm CSR Hebel® 75mm PowerPanel$^{XL}$.<br>The sealant must be applied to one side of the wall for -/60/60 applications and must have been tested or assessed for protecting a joint in 75 mm CSR Hebel® 75mm PowerPanel$^{XL}$. |

***Source:*** *Exova Warringtonfire Australia Pty Ltd; Rep No. 45771 R21.0 dated 23/02/2023.*

**Sound transmission through walls including in residential care buildings – Acoustic Performance Opinion for Discontinuous Construction**

**Table 1 – Acoustic Performance Opinion**

| CSR Hebel® 75mm PowerPanel$^{XL}$ Cavity Insulation | CSR Hebel® 75mm PowerPanel$^{XL}$ Wall Lining Both Sides | $R_w/R_w$ + Ctr Stud Depth | |
|---|---|---|---|
| | | 70mm | 90mm |
| NIL | 1 layer of 10mm Gyprock™ plasterboard (STANDARD) | 42/34 | 44/35 |
| 90mm Bradford Comfortseal R2.0 – both sides | | 61/51* | 63/54* |
| Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides – both sides<br>Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides | | 60/50* | 62/52* |

*Values in table above comply with BCA requirement of $R_W+C_{tr} \geq 50$

**Table 2 – Acoustic Performance Opinion**

| CSR Hebel® 75mm PowerPanel$^{XL}$ Cavity Insulation | CSR Hebel® 75mm PowerPanel$^{XL}$ Wall Lining Both Sides | $R_w/R_w$ + Ctr Stud Depth | |
|---|---|---|---|
| | | 70mm | 90mm |
| NIL | 1 layer of 13mm Gyprock™ plasterboard (standard) | 43/34 | 45/36 |
| 90mm Bradford Gold Batt R2.0 – both sides | | 64/52* | 67/55* |
| Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides<br>Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides | | 63/52* | 66/53* |
| NIL | 1 layer of 13mm Gyprock™ Soundcheck | 44/35 | 45/36 |
| 90mm Bradford Gold Batt R2.0 – both sides | | 67/55* | 70/58* |
| Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides<br>Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides | | 66/53* | 69/59* |
| NIL | 1 layer of 10mm Gyprock Aquachek | 43/34 | 45/36 |
| 90mm Bradford Gold Batt R2.0 – both sides | | 64/52* | 67/55* |
| Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides<br>Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides | | 63/50* | 66/53* |
| NIL | 1 layer of 9mm Cemintel Fibre cement sheet | 44/35 | 45/36 |
| 90mm Bradford Gold Batt R2.0 – both sides | | 67/55* | 70/58* |
| Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides<br>Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides | | 66/53* | 69/56* |

*Values in table above comply with BCA requirement of $R_W+C_{tr} \geq 50$

***Source:*** *Acoustic Logic Consultancy Report 2010861.19/0508A/R3/GW dated 05/08/2016.*

**A4 Manufacturer and manufacturing plant(s)**

CSR Hebel
112 Wisemans Ferry Road,
Somersby NSW 2250.

**A5 Installation requirements**

1. Only to be installed in accordance with Low Rise Multi Residential 75mm PowerPanel$^{XL}$ Intertenancy Walls Design and Installation Guide HELIT013June23 section 3.
2. 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$^3$ with a max. span between support anchors 3000mm.
3. All relevant detailing on site to be in accordance with Low Rise Multi Residential 75mm PowerPanel$^{XL}$ Intertenancy Walls Design and Installation Guide HELIT013June23.
4. Stud wall support frame to be designed and certified by others.
5. Only to be installed by a suitably licensed tradesperson or builder approved by Hebel.

**A6 Other relevant technical data**

No other relevant technical data.

## APPENDIX B – EVALUATION STATEMENTS

**B1 Evaluation methods**

1. Acoustic Provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.
2. Fire Safety Provisions A5G3(1)(d). A report issued by an Accredited Testing Laboratory.
3. Structural Provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.

**B2 Reports**

1. Acoustic Logic; Report Number 2010861.19/0508A/R3/GW; Acoustic Performance Opinion for Discontinuous Construction; Dated 05/08/2016. Opinion provides values for determining the sound transmission through walls as per BCA F7P2, F7P4 & H4P6 compliance.
2. CSIRO; Nata Accreditation No. 165; Report No. FNC-12490; Combustibility test for materials in accordance with AS 1530.1-1994; Dated 11/11/2019. Certificate confirms the Hebel® 75mm PowerPanel$^{XL}$ is a non-combustible building element as required by C2D10 & H3D2.
3. Exova Warringtonfire; NATA Accreditation 3277; Report No: 45771 R21.0; Fire resistance performance of CSR Hebel® 75mm PowerPanel$^{XL}$ party walls incorporating aluminium clips; Dated 23/02/2023. Reports provides FRLs achieved by the systems outlined in the report that confirms compliance with C2D2(2) & H3D4.
4. PACE Structural; File No. PS18158; Structural Design Certificate; Dated 07/04/2023. Certificate provides confirmation of compliance of the design capacity calculations Hebel® 75mm PowerPanel$^{XL}$ Intertenancy Walls with BCA requirements of B1P1(1),(2)(a), (b),(c) & (d) & H1P1(1),(2)(a), (b),(c) & (d).

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