

Certificate number: CM40048 Rev1

Certification Body:


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 CSR Hebel®

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THIS IS TO CERTIFY THAT

Hebel® PowerPanel^{XL} Low Rise Multi-Residential Intertency Wall System

Type and/or use of product:

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

Description of product:

Hebel® Low Rise Multi-Residential Inter-tenancy wall 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 2019 (Amdt. 1)

	Volume One	Volume Two
Performance Requirement(s):	BP1.1(a), (b)(i)(ii)(iii) FP5.2(a) FP5.5(a)	P2.1.1(a), (b)(i)(ii)(iii) P2.4.6
	Structural reliability Sound transmission through walls - (Can be used in conjunction with other building elements to achieve a total acoustic value) Sound transmission through walls in residential care buildings - (Can be used in conjunction with other building elements to achieve a total acoustic value)	Structural stability and resistance Sound insulation - (Can be used in conjunction with other building elements to achieve a total acoustic value)
Deemed-to-Satisfy Provision(s):	C1.1(b)	3.7.3.2(a)(i)
	Fire resistance and stability - As applicable - FRL varies, dependant of the configuration of the wall. Refer condition and limitation 4.	Fire protection of separating walls – As applicable - FRL varies, dependant of the configuration of the wall. Refer condition and limitation 4.
State or territory variation(s):	FP5.2 & FP5.5 NT part F5	P2.4.6 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:

- 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.
- 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.

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: 06/10/2020

Date of expiry: 01/05/2022



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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 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[®] PowerPanel^{XL} Low Rise Multi-Residential Intertency Wall System must not deviate from the contents of the [Low Rise Multi Residential 75mm PowerPanel^{XL} Intertency Walls Design and Installation Guide HELIT013APRIL19](#).
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. 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

PowerPanel^{XL} Low Rise Multi-Residential Intertency Wall System consists of the following components:

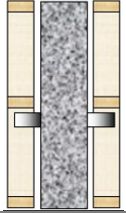
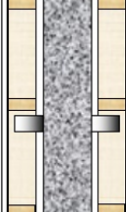
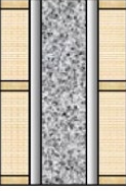
Product	Description																								
Hebel PowerPanel^{XL} panel	<p>The core component of PowerPanel^{XL} Intertency Wall Systems is the 75mm thick, steel mesh reinforced Hebel PowerPanel^{XL} panel. The panel is manufactured in a range of stock sizes as detailed below:</p> <table border="1"> <thead> <tr> <th>Length (mm)</th> <th>Width (mm)</th> <th>Weight (kg) at 35% M.C.</th> </tr> </thead> <tbody> <tr> <td>2400</td> <td>600</td> <td>58</td> </tr> <tr> <td>2550</td> <td>600</td> <td>62</td> </tr> <tr> <td>2700</td> <td>600</td> <td>66</td> </tr> <tr> <td>2800</td> <td>600</td> <td>68</td> </tr> <tr> <td>2850</td> <td>600</td> <td>69</td> </tr> <tr> <td>3000</td> <td>600</td> <td>73</td> </tr> <tr> <td>3300</td> <td>600</td> <td>80</td> </tr> </tbody> </table> <p>Note: Average panel weight calculated at 35% moisture content.</p>	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
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																							
Hebel Deflection Head Track	For positioning and restraining the bottom and mid connection of the panels.																								
Hebel Wall Brackets	The brackets are proprietary components which enable the Hebel 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 75mm Hebel Intertency Wall System.																								
Hebel 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.																								
Hebel Adhesive	Hebel Adhesive is used for bonding the panels together at vertical joints. Supplied in 20kg bags.																								
Hebel 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 PowerPanel ^{XL} Intertency Discontinuous Wall base arrangements. Supplied in 20kg bags.																								
Hebel Patch	Minor chips or damage to 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 PowerPanel ^{XL} Intertency Wall System incorporates Bradford Insulation materials.																								
GyprockTM Plasterboard	The PowerPanel ^{XL} Intertency Discontinuous Wall System incorporates Gyprock TM 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.																								

A3 Product specification

Fire Resistant Levels - FRLs Exova Warringtonfire Australia Pty Ltd; Report No. RIR 45771.19.1

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

Construction details are as follows:

System	Detail	Central Core	Framing	Lining	Performance
A		75mm CSR Hebel PowerPanel ^{XL}	Load bearing or non-load bearing	No internal linings	12m high (max) FRL 90/90/90 Or -/90/90
B		75mm CSR Hebel PowerPanel ^{XL}	Load bearing or non-load bearing	The proposed internal linings are to be installed by traditional glue and nail/screw fixing methods and must be either; <ul style="list-style-type: none"> • Sound Grade Plasterboard (10mm & 13mm) • Moisture Grade Plasterboard (10mm & 13mm) • Standard Plasterboard or GIB board minimum 6.5kg/m² (10mm & 13mm) • Fire Grade Plasterboard (10mm & 13mm) • Fibre Cement (6mm & 9mm) 	12m high (max) FRL 90/90/90 Or -/90/90
C		75mm CSR Hebel PowerPanel ^{XL}	Load bearing or non-load bearing timber framing with horizontal steel batten (24mm Top hats) at 1200mm centres. The timber frames shall be designed and constructed in accordance with latest versions of AS 1720.1-2010 and/or AS 1684-2010.	The proposed internal linings are to be installed by traditional glue and nail/screw fixing methods and must be either; <ul style="list-style-type: none"> • Sound Grade Plasterboard (10mm & 13mm) • Moisture Grade Plasterboard (10mm & 13mm) • Standard Plasterboard or GIB board minimum 6.5kg/m² (10mm & 13mm) • Fire Grade Plasterboard (10mm & 13mm) • Fibre Cement (6mm & 9mm) 	FRL 90/90/90 Or FRL -/90/90

System A represents the common application in roof space, between floors or below floor level where plasterboard linings are not present.

System B represents the application of the separating wall between habitable areas with plasterboard linings.

Note: Where the panel has less than 20 mm cavity between 2 separate leaves and mechanical linkage other than at the periphery are not suitable for discontinuous construction.

This assessment considers a number of variations to the tested prototype, and these are:

1. Extrapolation of wall height up 12m;
2. Structural timber frame with studs in accordance with AS 1684-2010 and at various spacings;
3. Structural steel frame with studs in accordance with AS 3740-2010 and at various stud spacings;
4. Application of plasterboard and fibre cement internal linings;
5. Up to an FRL of 90/90/90;
6. Details of suitable horizontal joints;

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7. Aluminium clips (1.6mm or 2.0mm thick) on each side of each panel, top and bottom and spaced at a maximum 3000mm centres vertically, Clips shall be no more than 600mm apart horizontally and centrally located within the panel width;
8. A 10mm minimum gap between framing and panels;
9. Optional use of PowerPanel^{XL} Panels of density 400kg/m³ up to an FRL of -/90/90 or 90/90/90; and
10. Overhang party wall construction over ground floor common veranda.

Aluminium Clip Connecting PowerPanel Core to Structural frames	The Hebel PowerPanel Panels are secured to the structural frame on both sides of the central core by 70mm x 40mm x 1.6mm thick aluminium clips 50mm wide only. The aluminium clips on each side of each panel, top and bottom and spaced at a maximum 3000mm centres vertically, Clips shall be no more than 600mm apart horizontally and centrally located within the panel width. The aluminium clips are screw fixed to the Hebel PowerPanel with two No. 12-8x60 or two No. 12-11x50 Hex Head Type 17 screws. The aluminium clips are fixed to the timber framing with two 25mm long hot dipped galvanised steel nails or two No. 12-11x25mm Hex head screws. The aluminium clips shall be fixed to steel framing with two 10-16x16 wafer head screws. Or The Hebel PowerPanel Panels are secured to the structural frame on both sides of the central core by 70mm x 40mm x 2mm thick aluminium clips 50mm wide only. The aluminium clips on each side of each panel, top and bottom and spaced at a maximum 3000mm centres vertically. Clips shall be no more than 600mm apart horizontally and centrally located within the panel width. The aluminium clips are screw fixed to the Hebel PowerPanel with two No. 12-8x60mm long or two No. 12 11x50mm long Hex Head Type 17 screws. The aluminium clips are fixed to the timber framing with two 25mm long hot dipped galvanised steel nails or two No. 12-11x25mm long Hex head screws. The aluminium clips shall be fixed to steel framing with two 10-16x16mm long wafer head screws.
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 PowerPanel 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 PowerPanel 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 PowerPanel Core	The sealant shall be applied to both sides of the wall and achieve a fire resistance level (FRL) of at least -/90/- for system A and -/90/90 for system B when tested or assessed protecting a joint in 75mm PowerPanel. The sealant shall be applied to one side of the wall and achieve a fire resistance level (FRL) of at least -/60/- for system A and -/60/60 for system B when tested or assessed protecting a joint in 75mm PowerPanel.
Variation to Gap Between Frame and Panel	The proposed range of gap is from 10mm to 20mm. The smallest gap allows a minimum wall foot print, whereas the larger thickness allows variation to meet and intersect other walls and remain at the same thickness.
Vertical Joints in Central PowerPanel Core	The sealant shall be applied to both sides of the wall and for -/90/- for system A and -/90/90 for system B applications when tested or assessed protecting a joint in 75mm CSR PowerPanel. The sealant shall be applied to one side of the wall and for -/60/- for system A and -/60/60 for system B applications when tested or assessed protecting a joint in 75mm CSR PowerPanel.
Variation of Party Wall with Overhang over Ground Floor Veranda	The Party Wall system is varied optionally with the construction of the non-discontinuous Party Wall overhanging over the common ground floor veranda as shown in Figure 3.3.7.1 and 3.3.7.2 of the installation manual Low Rise Multi Residential 75mm PowerPanelXL Intertency Walls Design and Installation Guide HELITO13APRIL19 .
Conditions:	The following restrictions apply: <ol style="list-style-type: none"> 1. The walls shall be constructed in accordance with the Low Rise Multi Residential 75mm PowerPanelXL Intertency Walls Design and Installation Guide HELITO13APRIL19. 2. The timber frames shall be designed in accordance with AS 1720.1-2010 or AS 1684-2010 or steel frames in accordance with AS 3623-1993 or AS/NZS 4600:2018. 3. Typical service penetrations, such as 19mm copper pipes, 65mm uPVC pipes, GPO outlets and electrical cable penetrations that may penetrate the outer linings without special treatments provided the clearance between the edge of the service and opening cut in the lining does not exceed 6mm. 4. Services shall not penetrate the PowerPanel core for System type B.

5. For larger penetrations of metallic services and cables through the outer linings only the opening around the penetrations shall be sealed with a tested fire rated sealant.
6. If openings have been cut in the linings it shall be reinstated with similar materials to ensure the contribution of the lining material is maintained.
7. Subject to the above the lining materials can be fixed to the structural framing following the general requirements currently specified by CSR for non-fire resistant plasterboard.
8. Service penetrations that penetrate the PowerPanel core in the roof space (System Type A) shall be protected by systems that can achieve an FRL of -/90/90 when penetrating the wall system as described in section 2. (However, it should be noted that applicable legislation may restrict service penetrations through separating walls, regardless of tested performance).
9. The gap between the framing and the PowerPanels widths may be a minimum of 10mm.
10. The results of the referenced assessment report are based on actual test data and the scope is necessarily limited to the specifications indicated Section 3 and discussed in the Appendices of the assessment.

Source: Exova Warringtonfire Australia Pty Ltd; Rep No. RIR 45771.19.1 dated 06/12/2019

Acoustic Performance

Acoustic Performance Opinion for Discontinuous Construction

Table 1 – Acoustic Performance Opinion

Wall System Code	Cavity Insulation	Wall Lining Both Sides	R _w /R _w + Ctr Stud Depth	
			70mm	90mm
HEB1900	NIL	1 layer of 10mm Gyprock™ plasterboard (STANDARD)	42/34	44/35
HEB1901	90mm Bradford Comfortseal R2.0 – both sides		61/51	63/54
HEB1902	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides – both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		60/50	62/52

Table 2 – Acoustic Performance Opinion

Wall System Code	Cavity Insulation	Wall Lining Both Sides	R _w /R _w + Ctr Stud Depth	
			70mm	90mm
HEB1903	NIL	1 layer of 13mm Gyprock™ plasterboard (standard)	43/34	45/36
HEB1904	90mm Bradford Gold Batt R2.0 – both sides		64/52	67/55
HEB1905	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		63/52	66/53
HEB1906	NIL	1 layer of 13mm Gyprock™ Soundcheck or 10mm Superchek	44/35	45/36
HEB1907	90mm Bradford Gold Batt R2.0 – both sides		67/55	70/58
HEB1908	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		66/53	69/59
HEB1909	NIL	1 layer of 10mm Gyprock Aquachek	43/34	45/36
HEB1910	90mm Bradford Gold Batt R2.0 – both sides		64/52	67/55
HEB1911	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		63/50	66/53
HEB1912	NIL	1 layer of 9mm Cemintel Fibre cement sheet	44/35	45/36
HEB1913	90mm Bradford Gold Batt R2.0 – both sides		67/55	70/58
HEB1914	Martini Prime MSB3 (70mm) MSB5 (90mm)- both sides Or Martini Prime 50 (70mm) Martini Prime 75 (90mm)- both sides		66/53	69/56

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} Intertency Walls Design and Installation Guide HELIT013APRIL19](#) section 3.
2. The Hebel[®] PowerPanel^{XL} Wall System is only to be installed by a suitably qualified tradesperson or a builder.
3. 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/m³ with a max. span between support anchors 3000mm.
4. All relevant detailing on site to be in accordance with [Low Rise Multi Residential 75mm PowerPanel^{XL} Intertency Walls Design and Installation Guide HELIT013APRIL19](#).
5. Stud wall support frame to be designed and certified by others.
6. Only to be installed by a suitably licensed tradesperson or builder approved by Hebel.

A6 Other relevant technical data

Non-Combustibility The certificate holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for 75mm Hebel[®] PowerPanel^{XL} Panel– Autoclaved Aerated Concrete (AAC) of density 400kgm³.

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

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

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

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

B2 Reports

1. Acoustic Logic; Report Number 2010861.19/0508A/R3/GW; Acoustic Performance Opinion for Discontinuous Construction; Dated 05/08/2016.
2. Exova Warringtonfire; NATA Accreditation 3277; Report No: 45771.19.1; Fire resistance performance of CSR Hebel party walls incorporating aluminium clips; Dated 06/12/2019.
3. PACE Structural; File No. PS18158; Structural design capacity calculations; Dated 23/04/2019

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