



Certificate of Conformity

Certificate number: CM40165

Certification Body:



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Certificate Holder:

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THIS IS TO CERTIFY THAT

Low Rise Multi Residential Hebel® PowerPanel⁵⁰ Dual Zero Boundary Wall System

Type and/or use of product:

Low Rise Multi Residential Dual Zero Boundary Wall System.

Description of product:

Hebel® PowerPanel⁵⁰ Dual Zero Boundary Wall System consists of Hebel® PowerPanel⁵⁰ (non-load bearing) panels screwed to the structural load bearing frame via horizontal steel top hats. The system uses Hebel Top Hat Direct Fix Clips to fix top hats internally where there is no access from outside.

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 – Limited to External Walls and subject to limitations and conditions No.5	H2P2 Weatherproofing – Limited to External Walls and subject to limitations and conditions No.5
			H4P7 Condensation and water vapour management
Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire Resistance – (90/90/90 from panel side only)	H3D3 Construction of External Walls – (90/90/90 from panel side only)
	J4D6	Energy Efficiency – External Walls. (Can be used in conjunction with other building elements to achieve a Total R-Value)	H6D2(1)(b)(i) Energy Efficiency – External Walls. (Can be used in conjunction with other building elements to achieve a Total R-Value)
State or territory variation(s):	Not Applicable		Not Applicable

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. Fire Resistance Level (FRL) – 90/90/90 is only applicable to walls exposed to fire from the panel side only.
2. The Hebel® PowerPanel⁵⁰ Dual Zero Boundary wall system is limited to Type C Construction for Class 2 to 9 buildings.
3. The wall framing system is to be designed and checked by a qualified professional Structural Engineer to satisfy structural adequacy.
4. Only to be installed in accordance with the [Low Rise Multi-Residential PowerPanel⁵⁰ Intertency and Dual Zero Boundary Walls - Design and Installation Guide](#) Version: HELIT152AUG23.

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: 31/08/2023

Date of expiry: 03/03/2024



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5. For construction in Wind Regions N1, N2 & N3 to satisfy F3P1 & H2P2 via verification, the relevant design is required to meet the criteria of F3V1 and/or H2V1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
 - (a)(i) has a risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table F3V1a/H2V1a; and
 - (a)(ii) is not subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
 - (a)(iii) includes only windows that comply with AS 2047.

Compliance with Weatherproofing is limited to the tested specimen detailed in A3, deviations from this specimen, is subject to site specific design and approval by the regulatory authority. For Construction in Wind Regions N4, C1, C2, C3, & C4; a site specific performance solution addressing F3P1 & H2P2 is required.
6. Compliance with H4P7 Condensation and water vapour management is satisfied via verification method H4V5, refer A3.
7. The Consulting Engineers certificate is limited to the adequacy of the design documents and does not extend to the construction, workmanship or actual materials used, for which the Consulting Engineer is not responsible and in relation to which his liability shall be limited and excluded to the fullest extent permitted by law.
8. The installation of the Hebel® PowerPanel⁵⁰ Zero Boundary Wall System on site must be in accordance with Section 2.2 Structural Provisions of the Hebel Houses Design and Installation guide (HELIT152APRIL23).
9. Design certification for earthquake loading compliance in accordance with AS 1170.4:2007 excludes Meckering Regions and Island Regions as stipulated in Table 3.2.
10. Components approved under this certificate are not part of the seismic-force-resisting system.
11. Where the height of the wall is increased to a maximum of 15m for Class 1 and 10 Buildings only the following limitations and conditions apply;
 - a. Only to be installed following completion of site specific design and engineering.
 - b. The overall wall height limit is 15m commencing from the base of the Hebel® PowerPanel⁵⁰ panel.
 - c. Only to be installed in accordance with [Low Rise Multi Residential PowerPanel50 Intertency and Dual Zero Boundary Walls Design and Installation Guide HELIT152AUG23](#).
 - d. Hebel Perforated Top Hats in galvanised steel are provided in nominal widths of 24mm and 35mm and have been designed and constructed in accordance with AS 3623-1993 (R2018) and AS/NZS 4600:2018 (NCC Performance Requirement).
 - e. It is the designer's responsibility to determine an appropriate wall framing system to satisfy structural adequacy. It is the designer's responsibility to ensure the connection system has adequate capacity to resist any imposed earthquake loading.
 - f. Penetrations for service installations for Class 1 buildings must be confirmed by a licensed professional Fire Engineer.
 - g. Structural adequacy of the framing must be confirmed by a licensed professional Structural Engineer.
 - h. No substitution of the components covered in this Certificate of Conformity is permitted.
12. 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.



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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® PowerPanel⁵⁰ Zero Boundary Wall System consists of Hebel® PowerPanel⁵⁰ (non-load bearing) panels screwed to the structural load bearing frame via horizontal steel top hats. The system uses Hebel® Top Hat Direct Fix Clips to fix top hats internally where there is no access from outside.

Product	Description																																								
Hebel® PowerPanel⁵⁰ panel	The core component of Hebel® PowerPanel ⁵⁰ Dual Zero Boundary Wall Systems is the 50mm thick, steel mesh reinforced Hebel® PowerPanel ⁵⁰ panel. The panel is manufactured in a range of stock sizes as detailed below: <table border="1" data-bbox="519 630 1339 938"> <thead> <tr> <th>Product no.</th> <th>Length (mm)</th> <th>Width (mm)</th> <th>Thickness (mm)</th> </tr> </thead> <tbody> <tr><td>99939</td><td>2400</td><td>600</td><td>50</td></tr> <tr><td>133805</td><td>2550</td><td>600</td><td>50</td></tr> <tr><td>162758</td><td>2700</td><td>600</td><td>50</td></tr> <tr><td>162757</td><td>2800</td><td>600</td><td>50</td></tr> <tr><td>162756</td><td>2850</td><td>600</td><td>50</td></tr> <tr><td>162760</td><td>3000</td><td>600</td><td>50</td></tr> <tr><td>482684</td><td>2700</td><td>600</td><td>50</td></tr> <tr><td>482732</td><td>2850</td><td>600</td><td>50</td></tr> <tr><td>482683</td><td>3000</td><td>600</td><td>50</td></tr> </tbody> </table> <p>Note: Average panel weight calculated at 35% moisture content.</p>	Product no.	Length (mm)	Width (mm)	Thickness (mm)	99939	2400	600	50	133805	2550	600	50	162758	2700	600	50	162757	2800	600	50	162756	2850	600	50	162760	3000	600	50	482684	2700	600	50	482732	2850	600	50	482683	3000	600	50
Product no.	Length (mm)	Width (mm)	Thickness (mm)																																						
99939	2400	600	50																																						
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482684	2700	600	50																																						
482732	2850	600	50																																						
482683	3000	600	50																																						
Hebel® Top Hat	Hebel® Perforated Top Hats are used to fix the Hebel® PowerPanel ⁵⁰ panel to the structural support framing. There are two nominal widths available: 24mm and 35mm – incorporating perforated flanges for ease of installation on to external wall frame. For use with Hebel top hat direct fix clip.																																								
Hebel® Top Hat Direct Fix Clip	For attaching 24mm or 35mm top hat sections to structural stud frame in Hebel® PowerPanel ⁵⁰ Dual Zero Boundary Wall applications.																																								
RONDO 314 Direct Fix Clip	For attaching RONDO 301(16mm) batten to structural stud frame in Hebel® PowerPanel ⁵⁰ Dual Zero Boundary Wall applications.																																								
RONDO 301 Batten	RONDO 301 battens are used to fix the Hebel® PowerPanel ⁵⁰ panel to the structural support framing. For use with RONDO 314 direct fix clip.																																								
Hebel® Adhesive	Hebel® Adhesive (supplied in 20kg bags) is used for bonding the panels together at vertical joints.																																								
Hebel® Mortar	Hebel® Mortar (supplied in 20kg bags) 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 Dual Zero Boundary Walls where the gap at the base of the panel at the slab rebate exceeds 3mm.																																								
Hebel® Patch	Minor chips or damage to Hebel® PowerPanel ⁵⁰ panels are to be repaired using Hebel® Patch (supplied in 10kg bags).																																								
Hebel® Anti-Corrosion Protection Paint	To coat exposed reinforcement during cutting.																																								
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 fire and acoustic rated sealant installed to manufacturer's specifications.																																								
Bradford Insulation	The Hebel® PowerPanel ⁵⁰ Dual Zero Boundary Wall System incorporates Bradford Insulation materials.																																								
Gyprock™ Plasterboard	The Hebel® PowerPanel ⁵⁰ Dual Zero Boundary Wall System incorporates Gyprock™ Plasterboard. The type, thickness and densities of plasterboard will be as per the specified wall requirements. Additional information is available from CSR Gyprock™.																																								

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Product	Description
Fire & Acoustic Sealant	To attain the specified FRL and / or RW 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

FRL Systems – CSIRO Report FCO-3241

Contact the Certificate Holder for construction details and drawings to achieve Fire-resistance level (FRL) 90/90/90 from panel side only.

System Components

Component	Detail	Description	
AAC Panel	Name	Hebel® PowerPanel ⁵⁰	
	Material	CSR Hebel® PowerPanel ⁵⁰ as tested 682kg/m ³ 600mm wide, 50mm thick and 2400mm to 3000mm long. Manufacturer states Dry Density 510kg/m ³	
	Installation	Installed vertically and laterally supported by aluminium clips at the top and bottom that are fixed to the structural frame. Vertical joints glued together with CSR Hebel Adhesive. Panels may be filled at the bottom with Hebel® Mortar or with CSR Hebel® Adhesive.	
Furring Channel and Fixing	Name	Tophat and clips	
	Product	Tophat - RONDO #303 with RONDO 311D direct fixing clip Tophat – 24mm deep (min) steel tophat screw fixed to framing	
	Material	Galvanised mild steel.	
	Installation	The RONDO #303 tophat is screw fixed to the Hebel® PowerPanel ⁵⁰ with a 12-11 x 35 type 17 hex head screw and clip fixed to the RONDO 311D direct fixing clip. RONDO 311D direct fixing clip is screw fixed to timber frame with 2/12-11x35 type 17 hex head screws or for steel frame 2/10-16x16 Hex Tek screws. The Hebel® PowerPanel ⁵⁰ is screw fixed to the 24mm deep (min) steel top hat with a 12-11 x 65 type 17 hex head screw. The tophat is screw fixed to timber frame with 2/12-11x35 type 17 hex head screws or for steel frame 2/10-16x16 Hex Tek screws.	
Structural Timber Frame	Name	Timber wall and floor framing	
	Material	Structural timber designed in accordance with AS 1684 series or AS 1720.1:2010	
	Installation	Installed in accordance with above standards or project engineers specifications.	
Structural Steel Frame	Name	Steel wall and floor framing	
	Material	Light gauge structural steel frame designed in accordance with "AS/NZS 4600" or "Residential and low-rise steel framing: NASH Standard – Residential and Low-Rise Steel Framing, Part 1 or Part 2"	
	Installation	Installed in accordance with above standards or project engineers specifications.	
Wall Linings	Name	Internal Wall Linings	
	Material	Specification	
		Plasterboard	10mm Gyprock plus
		Plasterboard	Any other standard grade, water grade, acoustic grade, fire grade plasterboard manufactured in accordance with AS/NZS 2589:2017 and with a density greater 5.7kg/m ² .
		Fibre Cement	Any 6mm fibre cement manufactured in accordance with AS 2908.2:2000 and greater than 6mm in thickness with or without tiles.
Installation	Linings may be fixed with "screw and glue" installation methods in accordance with manufacturer's specifications. Lining joints shall be taped and set in accordance with manufacturer's specifications.		
Insulation	Name	Wall Insulation	
	Material	Polyester, Glasswool or Rockwool or no insulation may be installed in wall cavities without detrimentally affecting their FRL.	
	Installation	Installed in accordance with project specifications.	
	Name	Joint Sealant.	

Vertical and horizontal panel join filling	Material	CSR FireSeal™ sealant over PE backing rod.
	Installation	CSR FireSeal™ sealant shall be installed in gaps up to 10mm wide and 10mm deep over PE backing rod.

Source: CSIRO; NATA Accreditation No. 165; Assessment Report No. FCO-3241 Rev B dated 25/11/2023.

Fire – 15m Wall Height in Class 1 and 10 Construction

- The maximum height of the CSR Hebel® PowerPanel⁵⁰ External Wall is not to exceed 15m and is to be constructed in accordance with the construction methods detailed in [Low Rise Multi Residential PowerPanel50 Intertenancy and Zero Boundary Walls Design and Installation Guide Version: HELIT152AUG23](#).
- CSR Hebel® PowerPanel⁵⁰ External Wall system is to be used only in Class 1 building in accordance with BCA 2022 Volume Two.
- CSR Hebel® PowerPanel⁵⁰ External Wall must be used as external wall only.
- Structural timber frame must be designed in accordance with AS 1684.2-2010, AS 1684.4-2010 or AS 1720.1-2010.
- Structural steel stud frame must be designed in accordance with AS 3623-1993 and/or AS/NZS 4600:2018.
- The Hebel® PowerPanel⁵⁰ panels are to be fixed to a timber frame or a steel stud frame with horizontal steel top hats or battens, with a maximum distance of separation between the steel top hats or battens not exceeding 900mm, as detailed in Figure 2.10.1.2 of HELIT152APRIL23.
- The Hebel® PowerPanel⁵⁰ panels must not bear any structural load other than the weight of other Hebel® PowerPanel⁵⁰ stacked above them.
- CSR Hebel® PowerPanel⁵⁰ External Wall system shall have horizontal control joint as shown in Figure 2.10.4.1 and Figure 2.10.4.2 of HELIT152APRIL23.
- CSR Hebel® PowerPanel⁵⁰ External Wall system shall have vertical control joint as shown in Figure 2.10.4.1 and Figure 2.10.4.2 of HELIT152APRIL23.
- CSR Hebel® PowerPanel⁵⁰ External Wall must extend to the underside of a non-combustible roof covering or non-combustible eaves lining, in accordance with BCA 2022 Volume Two.
- For a multi-storey building, the floor system shall be constructed as shown Figure 2.10.1.2 of HELIT152APRIL23 and the floor system shall not be fire-resisting.
- Any gap between Hebel® PowerPanel⁵⁰ and non-combustible roof covering or eaves lining must be filled with compressed Rockwool with a minimum of 13mm compression.

Source: SGA Fire – A Jensen Hughes Company; Report No. 115620-FAR1-r1; Dated 19/10/2022.

Condensation Management

Hygrothermal modelling of the CSR Hebel® PowerPanel⁵⁰ Dual Zero Boundary Wall has been undertaken in accordance with H4V5. 1D hygrothermal modelling of the Hebel dual zero boundary wall system without a vapor barrier or vapour permeable membrane, using the outer surface as a water control layer, results in low moisture content and complies with the mould growth index for Climate Zones 5 – 6 .

No ongoing risk of moisture, mould or condensation as per DA07 boundary conditions is evident over the 10-year study. As the Total Water Content of the zero-boundary wall system does not accumulate overtime, instead cycling with seasons, we can also state ongoing moisture risk is low after the 10-year study. As a result of the above, it can be stated that the risks associated with water vapour and condensation have been managed to minimise their impact on the health of occupants.

Source: Darren O’Dea – Speckel; Reference No. 019[00] Hygrothermal Assessment dated 20/02/2023.

A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact Certificate Holder for details.

A5 Installation requirements

Only to be installed in accordance with [Low Rise Multi Residential PowerPanel50 Intertenancy and Zero Boundary Walls Design and Installation Guide Version: HELIT152AUG23](#)

Single Hebel® PowerPanel⁵⁰ Intertenancy Wall System refer Tables 2.2.1, 2.2.2, 2.2.3 and Table 2.2.4 of HELIT152APRIL23 for fixing requirements for Dual Zero Boundary Walls.

A6 Other relevant technical data

Acoustic Properties - The following System Configurations have been assessed with the Predicted Ratings that could be achieved.

<p>System 1 Predicted Rating: $R_w = 66$; C_{tr}-15, R_w+ C_{tr}=51</p> <ul style="list-style-type: none"> • 1 layer of 16mm Plasterboard (12.5 kg/m² density) • 90mm timber stud frame • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber frame via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber frame via horizontal top hats. • 24mm top hat • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 90mm timber stud frame • 1 layer of 16mm Plasterboard (12.5 kg/m² density) 	<p>System 2 Predicted Rating: $R_w = 68$; C_{tr}-15, R_w+ C_{tr}=53</p> <ul style="list-style-type: none"> • 2 layers of 13mm Plasterboard (8.5 kg/m² density) • 70mm timber stud frame • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber frame via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber frame via horizontal top hats. • 24mm top hat • 70mm timber stud frame • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 2 layers of 13mm Plasterboard (8.5kg/m² density)
<p>System 3 Predicted Rating: $R_w = 66$; C_{tr}-15, R_w+ C_{tr}=51</p> <ul style="list-style-type: none"> • 1 layer of 13mm Plasterboard (8.5 kg/m² density) • 76mm steel stud frame • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to steel frame via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to steel frame via horizontal top hats. • 24mm top hat • 76mm steel stud frame • 75mm thick 11Kg/m³ Glasswool insulation or equal in stud frame • 1 layer of 13mm Plasterboard (8.5 kg/m² density) 	<p>System 4 Predicted Rating: $R_w = 66$; C_{tr}-15, R_w+ C_{tr}=51</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 90mm timber stud frame. • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 90mm timber stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal.
<p>System 5 Predicted Rating: $R_w = 66$; C_{tr}-16, R_w+ C_{tr}=50</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 70mm timber stud frame. • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 70mm timber stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. 	<p>System 6 Predicted Rating: $R_w = 66$; C_{tr}-15, R_w+ C_{tr}=51</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 76mm steel stud frame. • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Standard Gold batt or (min 10.47Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 76mm steel stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal.

<p>System 7 Predicted Rating: RW = 66; Ctr-15, RW+ Ctr=51</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 90mm timber stud frame. • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 90mm timber stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. 	<p>System 8 Predicted Rating: Rw = 66; C_{tr}-16, R_w+ C_{tr}=50</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 70mm timber stud frame. • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 70mm timber stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal.
<p>System 9 Predicted Rating: Rw = 66; C_{tr}-15, R_w+ C_{tr}=51</p> <ul style="list-style-type: none"> • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. • 76mm steel stud frame. • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 10mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 76mm steel stud frame. • 1 layer of 10mm Superchek (min density 10.4 kg/m²) or equal. 	<p>System 10 Predicted Rating: Rw = 67; C_{tr}-15, R_w+ C_{tr}=52</p> <ul style="list-style-type: none"> • 1 layer of 13mm plasterboard (min density 8.5 kg/m²) or equal. • 90mm timber stud frame. • 75mm thick 14Kg/m³ Glasswool or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 50mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • 75mm thick 14Kg/m³ Glasswool or equivalent in stud frame. • 90mm timber stud frame. • 1 layer of 13mm plasterboard (min density 8.5 kg/m²) or equal.
<p>System 11 Predicted Rating: RW = 66; Ctr-15, RW+ Ctr=51</p> <ul style="list-style-type: none"> • 1 layer of 13mm plasterboard (min density 8.5 kg/m²) or equal. • 70mm timber stud frame. • 75mm thick 14Kg/m³ Glasswool or equivalent in stud frame. • 24mm top hat • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 50mm gap between panels • Hebel® PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats. • 24mm top hat • 75mm thick 14Kg/m³ Glasswool or equivalent in stud frame. • 70mm timber stud frame. • 1 layer of 13mm plasterboard (min density 8.5 kg/m²) or equal. 	

Source: Acoustic Logic Consultancy Report 20210103.13/1205D/R0/TB dated 12/05/2023.

Non-combustibility The certificate holder has provided the Certificate of Test for Combustibility for Materials in accordance with AS 1530.1:1994 for Hebel[®] PowerPanel⁵⁰ – Autoclaved Aerated Concrete (AAC) Dry Density 510kgm³.

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

Source: CSIRO; NATA Accreditation No. 165; Report No. FNC12427A dated 02/09/2019.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Condensation and water vapor management provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.
2. Fire Safety Provisions A5G3(1)(d)&(e). A report issued by an Accredited Testing Laboratory and a report from a professional engineer or other appropriately qualified person.
3. Structural Provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.
4. Thermal Provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.
5. Weatherproofing Provisions A5G3(1)(e). A certificate or report from a professional engineer or other appropriately qualified person.

B2 Reports

1. Xavier Knight; Report Reference No. 220912 Rev03; CSR Cladding Systems Weatherproofing Re-assessments; Dated 17/04/2023, This report contributes to the weatherproofing compliance with F3P1 & H2P2.
2. CSIRO; NATA Accreditation No. 165; Report No. DTF1021; Water penetration testing to the Verification Methods FV1 & V2.2.1; Dated 27/01/2015, This report contributes to the weatherproofing compliance with F3P1 & H2P2.
1. CSIRO; NATA Accreditation No. 165 Assessment report FCO-3241; Fire-resistance level (FRL) in accordance with AS1530.4:2014; Dated 25/11/2022, This report contributes towards compliance with C2D10(2) & H3D3.
3. CSIRO; NATA Accreditation 165; Report No. FNC-12427A; Combustibility test for materials in accordance with AS 1530.1-1994; Dated 02/09/2019, This report confirms the Hebel AAC is not deemed combustible in accordance with AS 1530.1.
4. James M Fricker; Report No. i107f; Determination of R values by calculation in accordance with AS/NZS 4859.1:2018; Dated 16/06/2020, This report contributes towards compliance with J4D6 & H6D2.
5. PACE Structural; Report PS18013; Structural Design Certificate; Dated 16/08/2023, These calculations contribute to the structural compliance with B1P1 & H1P1.
6. PACE Structural; Structural Design Certificate; Dated 15/08/2023, These calculations contribute to the structural compliance with B1P1 & H1P1.
2. SGA Fire – A Jensen Hughes Company; Report No. 115620-FAR-r1; Fire performance report of HEBEL[®]PowerPanel⁵⁰ Party Wall -Overhang; Dated 19/10/2022, This report contributes towards compliance with C2D10(2) & H3D4.
3. Darren O’Dea – Speckel; Reference No. 019[00]; Hygrothermal Assessment of 50mm Dual Zero Boundary Wall and 50mm External Wall; Dated 20/02/2023, This report contributes towards compliance with H4P7.

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