

Certificate number: CM40165

Certification Body:


 ABN: 80 111 217 568
 JAS-ANZ Accreditation
 No. Z4450210AK
 PO Box 7144, Sippy
 Downs Qld 4556
 +61 (07) 5445 2199
www.CertMark.org

Certificate Holder:

Hebel®
 ABN: 55 008 631 356
 Triniti 3, 39 Delhi Rd
 North Ryde, NSW
 2113
 Ph: 1300 712 896
www.hebel.com.au

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 (non-load bearing) PowerPanel⁵⁰ panels screwed to the structural load bearing frame via horizontal steel top hats. The system utilises 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 2019 (Amdt. 1)

| | Volume One | Volume Two |
|---|---|--|
| Performance Requirement(s): | BP1.1(a),(b)(i), (ii),(iii)&(iv) FP1.4 | P2.1.1(a),(b)(i), (ii),(iii)&(iv) P2.2.2 |
| | Structural reliability Weatherproofing – Limited to External Walls and subject to limitations and conditions No.5 | Structural stability and resistance to actions Weatherproofing – Limited to External Walls and subject to limitations and conditions No.5 |
| Deemed-to-Satisfy Provision(s): | C1.1(b) J1.5 | 3.7.2.4(b)(i) 3.12.1.4 |
| | Fire Resistance – (90/90/90 from panel side only) Energy Efficiency – External Walls. (Can be used in conjunction with other building elements to achieve a Total R-Value) | Construction of External Walls – (90/90/90 from panel side only) 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 | Part 3.12 (NSW, NT, SA, Qld, Tas, ACT) |

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

Limitations and conditions:

- Fire Resistance Level (FRL) – 90/90/90 is only applicable to walls exposed to fire from the panel side only.
- The PowerPanel⁵⁰ Dual Zero Boundary wall system is limited to Type C Construction for Class 2 to 9 buildings.
- The wall framing system is to be designed and checked by a qualified professional Structural Engineer to satisfy structural adequacy.
- Only to be installed in accordance with the [Low Rise Multi-Residential PowerPanel⁵⁰ Intertenancy and Dual Zero Boundary Walls - Design and Installation Guide Version: HELIT152FEB20](#).
- For construction in Wind Regions N1, N2 & N3 to satisfy FP1.4 & P2.2.2 via verification, the relevant design is required to meet the criteria of FV1.1 and/or V2.2.1 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 FV1.1/V2.2.1a; and

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: 03/03/2021

Date of expiry: 03/03/2024



Certificate of Conformity

- (a)(ii) is not subjected to an ultimate limit state wind pressure or 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 FP1.4 & P2.2.2 is required.
6. For all external wall applications a pliable building membrane must be installed in accordance with BCA Parts 3.8.7.2(a)(i),(ii),(iii)&(iv) or F6.2(a)(i),(ii),(iii)&(iv) or a site specific performance solution to address FP6.1 & P2.4.7 for applications involve Class 1A, Class 2 and Class 4 Buildings.
 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 PowerPanel⁵⁰ Zero Boundary Wall System on site must be in accordance with Section 1.3 Structural Provisions of the Hebel Houses Design and Installation guide (HELIT152FEB20).
 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 of the NCC.
 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 HELIT152FEB20.
 - 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. This may result in the product being classified as a non-conforming building product.



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, 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

Hebel PowerPanel⁵⁰ Zero Boundary Wall System consists of Hebel (non-load bearing) PowerPanel⁵⁰ panels screwed to the structural load bearing frame via horizontal steel top hats. The system utilises 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 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="519 635 1261 817"> <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>50</td> </tr> <tr> <td>2550</td> <td>600</td> <td>53</td> </tr> <tr> <td>2700</td> <td>600</td> <td>56</td> </tr> <tr> <td>2850</td> <td>600</td> <td>59</td> </tr> <tr> <td>3000</td> <td>600</td> <td>62</td> </tr> </tbody> </table> | Length (mm) | Width (mm) | Weight (kg) at 35% M.C. | 2400 | 600 | 50 | 2550 | 600 | 53 | 2700 | 600 | 56 | 2850 | 600 | 59 | 3000 | 600 | 62 |
| Length (mm) | Width (mm) | Weight (kg) at 35% M.C. | | | | | | | | | | | | | | | | | |
| 2400 | 600 | 50 | | | | | | | | | | | | | | | | | |
| 2550 | 600 | 53 | | | | | | | | | | | | | | | | | |
| 2700 | 600 | 56 | | | | | | | | | | | | | | | | | |
| 2850 | 600 | 59 | | | | | | | | | | | | | | | | | |
| 3000 | 600 | 62 | | | | | | | | | | | | | | | | | |
| | Note: Average panel weight calculated at 35% moisture content. | | | | | | | | | | | | | | | | | | |
| 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 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 PowerPanel ⁵⁰ Dual Zero Boundary Wall System incorporates Bradford Insulation materials. | | | | | | | | | | | | | | | | | | |
| Gyprock™ Plasterboard | The 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. | | | | | | | | | | | | | | | | | | |
| 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

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 | 50mm Hebel PowerPanel ⁵⁰ | |
| | Material | CSR Hebel AAC 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 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 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 | 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. | |
| Vertical and horizontal panel join filling | Name | Joint Sealant. | |
| | 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 dated 07/08/2017.

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

1. The maximum height of the CSR HEBEL® 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 Intertency and Zero Boundary Walls Design and Installation Guide Version: HELIT152FEB20.
2. CSR HEBEL® 50 mm External Wall system is to be used only in Class 1 building in accordance with NCC 2019 Volume Two.
3. CSR HEBEL® 50 mm External Wall must be used as external wall only.
4. Structural timber frame must be designed in accordance with AS 1684.2-2010, AS 1684.4-2010 or AS 1720.1-2010.
5. Structural steel stud frame must be designed in accordance with AS 3623-1993 and/or AS/NZS 4600:2018.
6. The AAC 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 HELIT152FEB20.
7. The AAC panels must not bear any structural load other than the weight of other AAC panels stacked above them.
8. CSR HEBEL® 50 mm External Wall system shall have horizontal control joint as shown in Figure 2.10.4.1 and Figure 2.10.4.2 of HELIT152FEB20.
9. CSR HEBEL® 50 mm External Wall system shall have vertical control joint as shown in Figure 2.10.4.1 and Figure 2.10.4.2 of HELIT152FEB20.
10. CSR HEBEL® 50 mm External Wall must extend to the underside of a non-combustible roof covering or non-combustible eaves lining, in accordance with NCC 2019 Volume Two.
11. For a multi-storey building, the floor system shall be constructed as shown Figure 2.10.1.2 of HELIT152FEB20 and the floor system shall not be fire-resisting.
12. Any gap between AAC panel and non-combustible roof covering or eaves lining must be filled with compressed Rockwool with a minimum of 13mm compression.

Source: Stephen Grubits & Associates Pty Ltd; Report No. 2018/162 R2.6; Dated 01/09/2020.

A4 Manufacturer and manufacturing plant(s)

CSR Hebel
112 Wisemans Ferry Road,
Somersby NSW 2250.

A5 Installation requirements

Only to be installed in accordance with [Low Rise Multi Residential PowerPanel⁵⁰ Intertency and Zero Boundary Walls Design and Installation Guide Version: HELIT152FEB20](#) Single PowerPanel⁵⁰ Intertency Wall System. Refer Tables 2.2.1, 2.2.2, 2.2.3 and Table 2.2.4 of HELIT152FEB for fixing requirements for 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 • 50mm thick Hebel PowerPanel50 fixed vertically to timber frame via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel50 fixed vertically to timber frame via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to steel frame via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel50 fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel50 fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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: 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. • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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: 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. • Soundscreen R2.0 or (min 25Kg/m³) Glasswool R2.0 or equivalent in stud frame. • 24mm top hat • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats • 10mm gap between panels • 50mm thick 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: R_w = 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 • 50mm thick Hebel PowerPanel⁵⁰ fixed vertically to timber via horizontal top hats • 50mm gap between panels • 50mm thick 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 • 50mm thick Hebel PowerPanel50 fixed vertically to timber via horizontal top hats • 50mm gap between panels • 50mm thick 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 20171728.18/1302A/R1/GW dated 13/02/2020.

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. Fire Safety Provisions A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
2. Structural Provisions A5.2(1)(e). Reports from a professional engineer.
3. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.
4. Weatherproofing Provisions A5.2(1)(e). Reports from a professional engineer.

B2 Reports

1. AECOM; Expert opinion on the weathertightness testing by CSIRO (Rep. DTF1021) to FV1 & V2.2.1; Dated 02/04/2020.
2. AECOM; Expert opinion on the weathertightness for Zero Boundary applications up to N2; Dated 06/11/2017.
3. AECOM; Expert opinion on the weathertightness for Zero Boundary applications up to N3; Dated 07/11/2017.
4. CSIRO; NATA Accreditation No. 165; Report No. DTF1021; Water penetration testing to the Verification Methods FV1 & V2.2.1; Dated 27/01/2015.
5. CSIRO; NATA Accreditation No. 165 Assessment report FCO-3241; Fire-resistance level (FRL) in accordance with AS1530.4:2014; Dated 07/08/2017.
6. CSIRO; NATA Accreditation 165; Report No. FNC-12427A; Combustibility test for materials in accordance with AS 1530.1-1994; Dated 02/09/2019.
7. James M Fricker; Report No. i107f; Determination of R values by calculation in accordance with AS/NZS 4859.1:2018; Dated 16/06/2020.
8. PACE Structural; Report PS18013; Structural Design Certificate; Dated 06/03/2020.
9. Stephen Grubits & Associates; F-2018-162 R2.6; Fire-Resistance of Hebel 500mm External Wall; Dated 01/09/2020.

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