

Certificate no: CM20245

Version: 01

Original issue date: 13 October 2021

Version date: 26 June 2025

## 1. Certificate Holder Details



CSR Building Product (NZ) Limited  
14 The Furlong, Takanini, Auckland  
PO BOX 188, Takanini, Auckland 2245  
Email: [info@hebel.co.nz](mailto:info@hebel.co.nz)  
Phone: 0800 443 235  
[www.hebel.co.nz](http://www.hebel.co.nz)

## 2. Product Certification Body



SAI Global Certification Services Pty Limited  
(ACN 108 716 669) Trading as "SAI Global"  
Operating as "Intertek & Intertek SAI Global"  
Address: Level 7 Suite 7.01. 45 Clarence Street,  
Sydney NSW 2000 Australia  
[www.saiglobal.com](http://www.saiglobal.com)

**Complaints:** The complaints process for this certificate can be found here:  
<https://saassurance.com.au/complaints-appeals/>

# Product Certificate

## CSR Building Product (NZ) Limited CSR Hebel® POWERFLOOR SYSTEMS

### 3. Description of Building Method or Product

CSR Hebel® PowerFloor System comprises of:

- lightweight steel reinforced autoclaved aerated concrete (AAC) panel installed over steel or timber floor joist system forming a platform floor, and
- Winstone Wallboards GIB®, and
- 90mm ceiling batts with thermal resistance R1.8.

CSR Hebel® PowerFloor panels are 75mm thick reinforced with corrosion-protected steel mesh and have tongue and groove edges.

*Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use  
Continuation of description can be found in item 10 – Supporting Information about Description.*

### 4. Intended use of Building Method or Product

CSR Hebel® PowerFloor Systems are for use as floor systems in low rise residential, commercial, and industrial buildings.

*Continuation of intended use can be found in item 11 – Supporting Information about Intended use.*

### 5. New Zealand Building Code Provisions

Clause B1 Structure — B1.3.1; B1.3.2; B1.3.3(a, b, f, i, j, m); and B1.3.4.

Clause B2 Durability — B2.3.1(a); and B2.3.2

Clause C3 Fire affecting areas beyond the fire source — C3.4(a) (contributes to); C3.4(b) (contributes to)

Clause C4 Movement to place of safety — C4.3 (contributes to)

Clause C6 Structural Stability — C6.2 (contributes to), C6.3(contributes to)

Clause F2 Hazardous building materials — F2.3.1

Clause G6 Airborne and impact sound — G6.3.1; and G6.3.2

Clause H1 Energy efficiency — H1.3.1(a) (contributes to); and H1.3.2E (contributes to)



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*How the building method or product complies or contributes can be found in item 8. Basis for Certification.*

*Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.*

## 6. Conditions and Limitations of Use

- a) The product is to be designed and installed only in accordance with Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014 – DEC24).
- b) The product is certified for use only in low-rise residential and commercial applications where no access to floors is required for the purpose of conducting firefighting and rescue operations.
- c) The product is not certified for external use in balconies, and the design and weathertightness considerations are outside the scope of this certification.
- d) The design and installation of engineered timber and/or steel structural floor joists or supporting framing are not covered by this certification and must comply with the relevant design standards. Joists supporting AAC flooring systems may not be selected from the tables within NZS 3604 as those tables have not made allowance for the self-weight of an AAC flooring panel.
- e) The Fire Resistance Rating (FRR) of Hebel® PowerFloor system, for fire exposure from the underside assessed with various GIB Fire rated systems are as identified in Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014– DEC24). Refer to the system index below in item 11 “SUPPORTING INFORMATION ABOUT INTENDED USE”.
- f) The product is not certified for use in Fire cells, where the requirements of clauses C3.8 of the building code applies.
- g) Energy Efficiency and Sound Insulation performance is dependent on the appurtenant ceiling system, floor covering type, and the use of 90mm ceiling batts with thermal resistance R1.8. Refer to the Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014– DEC24) for exact values for each ceiling system.
- h) The floor lining must be tested and assessed separately to comply with C3.4(b) of the building code.
- i) The product is for use in Earthquake Zone up to and including seismic zone 3 as defined in NZS 3604:2011.
- j) Hebel Powerfloor 75mm AAC Panel system is able to achieve diaphragm action to resist in plane shear forces when constructed in accordance with Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014 – DEC24). However, determination of the diaphragm capacity values remains the responsibility of the project design engineer.
- k) Other components as part of the system that are not manufactured by Hebel must also be installed in accordance with the respective manufacturers standard and specifications.
- l) Where Hebel PowerFloor is installed in a multi-residential/commercial application, the PowerFloor panels must be suitably protected against trafficability during construction, to maintain the long-term durability and integrity of the panels.
- m) When used in wet areas, a waterproof membrane layer shall be used over the Hebel PowerFloor panel. Waterproofing membranes shall be nominated by the designer or specifier and installed in accordance with the respective manufacturer’s recommendations.

NOTE: Together, items 3,4,5 and 6 define scope of use

Reference Documents:

- Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014– DEC24).



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## 7. Health and Safety Information

Hebel products are cement-based, which may irritate the skin, resulting in itching and occasionally a red rash. The wearing of gloves and suitable clothing to reduce abrasion and irritation of the skin is recommended when handling Hebel product.

Refer to the Hebel Material Safety Data Sheets and the Design and Installation Guide for further information regarding health and safety.

- CSR Safety Data Sheet – Autoclaved Aerated Concrete (for NZ) – CSR0001701 - Date of issue 08-02-2022.
- CSR Environmental Product Declaration, Hebel PowerPanel, EPD-IES-0015419 – Date of issue 25 November 2024.

## 8. Basis for Certification

- **B1 Structure** – by testing and comparison with provisions of Verification Method B1/VM1 and Acceptable Solution B1/AS1.
- **B2 Durability** – by testing and comparison with provisions of Verification Method and Acceptable Solution B2/AS1.
- **C3 Fire affecting areas beyond the fire source** – by testing and comparison with the provisions of Acceptable Solution C/AS1 and C/AS2.
- **C4 Movement to place of safety** – by testing and comparison with the provisions of Acceptable Solution C/AS1 and C/AS2.
- **C6 Structural stability (Fire)** – by testing and comparison with the provisions of Acceptable Solution C/AS1 and C/AS2.
- **F2 Hazardous building materials** – by analysis and comparison with the Performance Requirements of F2.3.1.
- **G6 Airborne and impact sound** – by testing and comparison with the provisions of Verification Method G6/VM1.
- **H1 Energy efficiency provisions** – by evaluation and comparison with the provisions of Acceptable Solution H1/AS1.

## 9. Supporting Documentation for Certification

Building regulations 1992 (SR 1992/150) – as at 23 December 2023.

Acceptable Solutions and Verification Methods for New Zealand Building Code:

- Clause B1 Structure** – B1/VM1, B1/AS1, Amendment 21 (02 November 2023).
- Clause B2 Durability** – B2/AS1, B2/VM1, 2<sup>nd</sup> edition (Amendment 12, 28 November 2019).
- Clause C3 Fire affecting areas beyond the source:**
  - Clauses C1-C6 Protection and Clause A3 Building Importance levels, (1 July 2014).
  - C/AS1, Protection from fire for buildings with sleeping (residential) and outbuildings (risk group SH), 2<sup>nd</sup> edition (2 November 2023)
  - C/AS2, Acceptable Solution for Buildings other than Risk Group SH, For New Zealand Building Code Clauses C1-C6 Protection from Fire, 1<sup>st</sup> edition (Amendment 3, 2 November 2023)
- Clause F2 Hazardous Building Materials** – 1<sup>st</sup> edition (Amendment 3, 1 January 2017).
- Clause G6 Airborne and Impact Sound** – G6/VM1, 1<sup>st</sup> edition (Amendment 2, 1 December 1995)



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F. Clause H1 Energy Efficiency – H1/AS1, 5<sup>th</sup> edition (Amendment 1, 4 August 2022)

## Test Reports

Basis for Certification	New Zealand Building Code Provisions	Test Report Number
B1 Structure	B1.3.1; B1.3.2; B1.3.3(a, b, f, i, j, m); B1.3.4	A, B, C
B2 Durability	B2.3.1(a), B2.3.2	D
C3 Fire affecting areas beyond the fire source	C3.4(a) (contributes to); C3.4(b)(contributes to)	E
C4 Movement to place of safety	C4.3 (contributes to)	E, F
C6 Structural Stability	C6.2 (contributes to), C6.3 (contributes to)	E
F2 Hazardous building materials	F2.3.1	G, H
G6 Airborne and Impact Sound	G6.3.1, G6.3.2	I
H1 Energy efficiency	H1.3.1(a) (contributes to); H1.3.2E (contributes to)	J

**A. BEMAC Laboratories – CSR Hebel Pty Ltd AAC – 50mm thick panels 600 x 3000mm Evaluation of Properties of 50mm AAC Product – Job No.10953 – (dated 04 May 2017)**

This report provides test results of full panel bending to AS 5146.2:2015 Reinforced Autoclaved Aerated Concrete – Part 2: Design.

**B. Lautrec Consulting Engineers, Hebel PowerFloor Low rise Residential & Commercial Floor (75mm) System Review – (dated 26 March 2025).**

This letter is from a Chartered Professional Engineer verifying that Hebel PowerFloor is designed in accordance with B1 of the New Zealand Building Code, and that the design tables in the Hebel Design and Installation guides are accurate.

**C. PACE – Structural Design certificate for the 75mm Hebel® PowerFloor System – File PS20085 – (dated 05 March 2025).**

This certificate confirms that the structural capacity span tables for strength and serviceability requirements of Hebel PowerFloor and its immediate fixings and supports as detailed in the Hebel® PowerFloor Low Rise Residential & Commercial Floor System New Zealand Design and Installation Guide (Helit014 Dec24) are structurally adequate to support imposed floor dead and live loads in accordance with the current relevant building and structural engineering codes in particular AS/NZS 1170.0:2002 (Amendment 5), AS/NZS 1170.1:2002 (Amendment 2), NZS 3604:2011, NZS 1170.5:2004 and AS 5146.2:2018 and in accordance with accepted engineering design practice and principles.

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- D. **Mahaffey Associates – Hebel Panels Durability Assessment to Australia and New Zealand Exposure Classifications – BAS/25/L01/9830 – (dated 26 February 2025).**  
This report provides durability findings based on the nature of the aerated concrete and the properties of the reinforcement protective coating and using the test results from an Accelerated testing of the AAC panels with coated reinforcement under very severe environmental conditions.
- E. **CSIRO – Combustibility test - Hebel Powerfloor – FNC12427A - AS 1530.1.1994 (50mm thickness), (dated 02 September 2019).**  
This test certificate provides the results of 50mm PowerFloor tested to the requirements of AS 1530.1:1994 and determines that the product is NOT deemed combustible.
- F. **Branz FIRE Technical Opinion - Fire resistance of CSR Hebel Panels with Winstone wallboards fire rated wall & ceiling systems, FC13639-001 Issue 1 (dated 4 March 2021)**  
This report contains the results from assessment of fire resistance of CSR Hebel fire rated external wall system and floor/ceiling systems with Winstone Wallboards Limited fire rated plasterboard in accordance with AS1530.4-2005/2014.
- G. **CSR Environmental Product Declaration, Hebel PowerPanel, EPD-IES-0015419 (dated 25 November 2024).**  
This document contains a breakdown of the products composition and does not indicate any substances likely to give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space.
- H. **CSR Safety Data Sheet – Autoclaved Aerated concrete, Reference no. CSR0001701, (dated 08 February 2022)**  
This document is issued by the supplier in accordance with New Zealand Workplace Exposure Standards. It contains information about the products composition and statement that the product as supplied is non-hazardous. It also provides information about the dust of the product if it was cut, sawn, abraded or crushed which would be classified as hazardous according to NZ EPA.
- I. **PKA Acoustic Consulting –Hebel Powerfloor – Acoustic performance Assessment – PKAA099 v2 (dated 09 May 2025).**  
This report details the acoustic performance of the Hebel PowerFloor flooring systems when compared to airborne and impact sound insulation requirements of the New Zealand Building Code separating occupancies, using test results from Test Reports TL 413, Tli413 and based on PKA's expert judgement and inhouse acoustic predictor.
- J. **James M Fricker PTY LTD – Appraisal letter for NZ Codemark CM20243 & CM20245, (dated 25 February 2025).**  
This letter confirms that the existing Total R-value calculation for wall systems as Iso-thermal planes methods as per NZS 4214:2006 & AS/NZS4859.1:2002/Amdt 1 2006 calculation report, Report No. i107enz, along with the supporting test reports, NR12140 and NR12139, remains valid for the renewal of the certification.

### 10. Supporting Information About Description

The core component of CSR Hebel® PowerFloor System is an autoclaved aerated concrete (AAC) containing steel reinforcement with an anti-corrosion layer on the steel for maximum durability.



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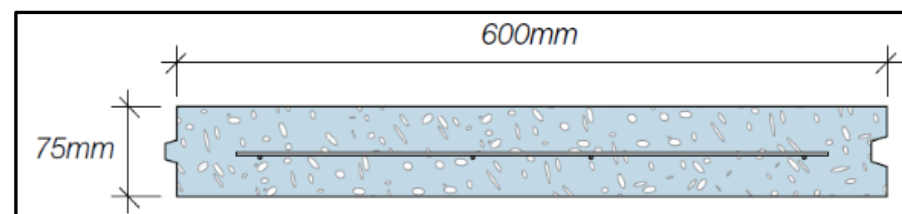
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- a) The Hebel® PowerFloor panel has a density 510kg/m<sup>3</sup> and is available in a stock length of 1800mm x 600mm width or 2400mm x 600mm width, with a mass of up to 56kg/panel.
- b) Hebel PowerFloor systems can support a maximum uniformly distributed load of 5kPa or concentrated (point) load 1.8kN over a load area of 350mm<sup>2</sup> (with joist at 450mm or 600mm centres only) & 3.9kN over a load area of 10,000mm<sup>2</sup> (with joists at 300mm centers).

### Installation Components and Accessories:

- A. Screws for fixing Hebel PowerFloor panels to Timber Joists:
  - 14-10 x 100mm MP Bugle Head Batten Screws.
  - 14-10 x 125mm Hex Head Screws.
- B. Screws for fixing Hebel PowerFloor panels to Steel Joists:
  - 14-10 x 95mm Hex Head Self-Tapping Screws.
  - 14-10 x 135mm Hex Head Self-Tapping Screws.
- C. GIB Plasterboard:
  - 13mm GIB Fyrelite.
  - 16mm GIB Fyrelite.
  - 19mm GIB Fyrelite.
  - 13mm GIB standard plasterboard.
  - 13mm GIB Braceline/Noiseline.

### Other Installation Components and Accessories:

- Hebel Adhesive.
- Fuller® Max Bond™.
- Hebel Patch.



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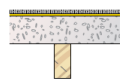



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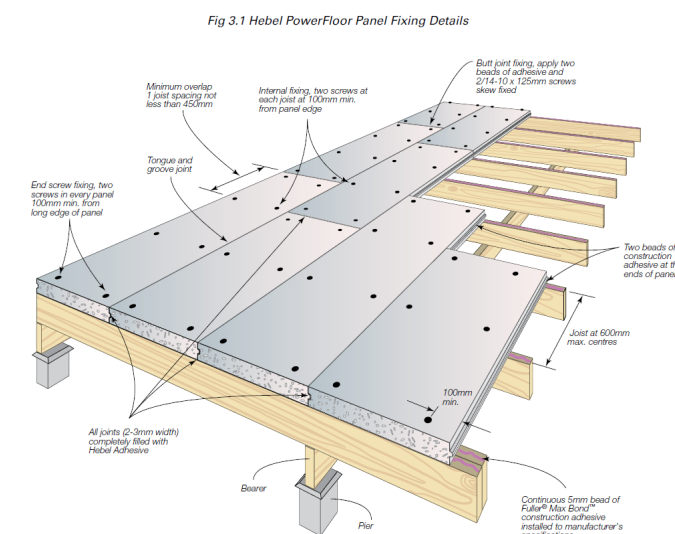
- Hebel anti-corrosion protection paint.

Fixing details, floor coverings, control joints, penetrations & notching details, and installation sequence are provided in Hebel® PowerFloor Low Rise Residential & Commercial Floor System Design and Installation Guide New Zealand (HELIT014– DEC24).

## 11. Supporting Information About Intended Use

Below is a system index for Hebel® PowerFloor Systems and Fixing Details:

Hebel PowerFloor System Description	Floor Covering Type	Applications & Benefits	System No.	System Details Page No.
	<ul style="list-style-type: none"> <li>• Carpet</li> <li>• Medium duty underlay</li> </ul>	<ul style="list-style-type: none"> <li>• Carpeted floor with a high level thermal performance.</li> </ul>	Hebel 1474 Hebel 1475 Hebel 1476	22
	<ul style="list-style-type: none"> <li>• 8mm Ceramic tiles</li> <li>• Flexible adhesive</li> <li>• Waterproof membrane (not required in dry areas)</li> </ul>	<ul style="list-style-type: none"> <li>• Rigid floor system, with good thermal performance. Suitable for wet or dry areas.</li> </ul>	Hebel 1478 Hebel 1479 Hebel 1481	25
	<ul style="list-style-type: none"> <li>• Vinyl sheet floor covering</li> <li>• Masonite underlay</li> </ul>	<ul style="list-style-type: none"> <li>• Inexpensive floor with a hard surface and high level of thermal performance.</li> </ul>	Hebel 1486 Hebel 1487 Hebel 1491	23
	<ul style="list-style-type: none"> <li>• 19mm T&amp;G hardwood flooring</li> <li>• 70 x 35mm timber battens</li> </ul>	<ul style="list-style-type: none"> <li>• Attractive solid timber finish with a high level of thermal performance.</li> </ul>	Hebel 1494 Hebel 1495 Hebel 1501	24



## 12. Supporting Information About Conditions and Limitations of Use

All conditions and limitations are as stated above in item 6. Conditions and Limitations of Use.

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### Signatures

Name and Signature of the Product Certification Body's (PCB) authorised representative and, where different, the person assigned by the PCB to make the certification decision.



Rathin Grover  
President, Business Assurance

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If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.