



Certificate of Conformity

Certificate number: CM70069 Rev1

Certification Body:



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Certificate Holder:



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THIS TO CERTIFY THAT

MaxiWall 50mm and MaxiFloor 50mm

Type and/or use of product:

MaxiWall 50mm is used as Internal and External Wall Systems suitable for houses, low rise and high rise multi-residential and commercial buildings. MaxiFloor 50mm is suitable for flooring in houses and multi-residential and commercial buildings.

Description of product:

The MaxiWall 50mm and MaxiFloor 50mm AAC Panel is a lightweight steel reinforced (AAC) building panel that is constructed of aerated concrete with a dry density of 510kg/m3 and a centrally located steel mesh reinforcement consisting of 4 x 5mm longitudinal bars and 6-8 transverse bars per linear meter length. Available in the following sizes:

- 50mm x 600mm x 1800mm
- 50mm x 600mm x 2200mm
- 50mm x 600mm x 2250mm

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2019

	Volume One		Volume Two	
Performance Requirement(s):	BP1.1(a), (b)(i)(ii)(iii) BP1.2 FP1.4	Structural reliability Structural resistance Weatherproofing	P2.1.1(a), (b)(i)(ii)(iii), (c) P2.2.2	Structural stability and resistance to actions Weatherproofing
Deemed-to-Satisfy Provision(s):	C1.1 Spec C1.1 (iii) C1.9(a)(i), (iii) C1.10(a)(ii), Spec C1.10 (iv) F5.2 – contributes to F5.4 – contributes to F5.5(a), (c), (d) – contributes to G5.1 G5.2 J1.2	Type of construction required Non-combustible building elements Fire hazard properties Sound transmission through walls Sound transmission through floors Sound insulation rating of walls Construction in bushfire prone areas Construction in bushfire prone areas Thermal construction – general as much as it is part of a system affecting J1.5, J1.6	3.7.2.4 3.8.6.2(a) – contributes to 3.10.5.0 3.12.1.1	Construction of external walls Sound insulation requirements Construction in bushfire prone areas Building fabric thermal insulation as much as it is part of a system described in 3.12.1.4 and 3.12.1.5.

Sam Guindi – Product Certification Manager
Bureau Veritas Australia Pty Ltd

Quintin Kleyn – Unrestricted Building Surveyor
Hendry Group Pty Ltd

Date of issue: 20 August 2020

Date of expiry: 13 April 2023



Certificate of Conformity

State or territory variation(s):

NT Part F5
 NSW G5.1 and G5.2
 QLD G5.1
 NT Section J
 NSW Section J
 QLD Section J

Health and amenity
 Construction in bushfire prone areas
 Construction in bushfire prone areas
 Energy efficiency
 Energy efficiency
 Energy efficiency

NSW 3.10.5.0
 QLD 3.10.5.0
 NSW Part 3.12 – does not apply
 NT Part 3.12 – is replaced with BCA 2009 Part 3.12
 QLD Part 3.12 - In Queensland, building work for the energy efficiency of Class 1 buildings is also regulated by the Building Act 1975 and the Queensland Development Code MP 4.1— Sustainable buildings.
 SA 3.12 - In South Australia, for the purposes of this Part, a sunroom or the like is deemed to be a Class 10a building and must comply with 3.12.1.6.
 ACT 3.12 - In the Australian Capital Territory, see the ACT Appendix for further information on application to building work on new buildings and additions to existing buildings in the ACT.

Construction in bushfire prone areas
 Construction in bushfire prone areas
 Energy efficiency
 Energy efficiency
 Energy efficiency
 Energy efficiency
 Energy efficiency

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. MaxiWall horizontal fix shall only be used to resist wind actions in accordance with AS1170.2 and wind actions for housing in accordance with AS4055 for non-cyclonic classes up to N6, and cyclonic wind classes up to C4 when fixed in accordance with Installation Guide BR-005, May 2018 – MaxiWall 50mm (Horizontal), Low-Rise Multi-Residential Buildings & Houses.
2. MaxiWall vertical fix shall only be used to resist wind actions in accordance with AS1170.2 and wind actions for housing in accordance with AS4055 for non-cyclonic classes up to N5, and cyclonic wind classes up to C3 when fixed in accordance with Installation Guide BR-005, May 2018 – MaxiWall 50mm (Vertical), Low-Rise Multi-Residential Buildings & Houses.
3. MaxiWall shall only be used for non-loadbearing applications where an FRL of up to -/120/120 is required.
4. To achieve a floor/ceiling FRL of (90)/90/90 the floor structural element shall be shielded from the lower compartment by 2 layers of 16mm fire grade plasterboard or as specified by the plasterboard manufacturer (Note: this does not remove the 10mm standard grade plasterboard requirement).
5. The AAC panel shall be fixed to structural framing complying with AS1684 (Volume as applicable) for timber framing and the NASH standard for steel framed residential and low-rise buildings.
6. Shall only be used for Type A, B or C construction.
7. The MaxiWall AAC panel shall only be used in bushfire areas based on the FRL and when constructed in accordance with AS 5146: Part 3 Section 2.7.2 it will satisfy the requirements of AS3959 for Bushfire Attack Level FZ (BAL FZ).
8. FP1.4 and P2.2.2 shall only be achieved if installed in conjunction with other materials in accordance with the installation manuals specified in section A5.
9. To comply with acoustic requirements of the NCC, Maxiwall and Maxifloor shall be installed with other building elements to achieve a total compliant acoustic value as outlined in the NCC.
10. MaxiWall and Maxifloor has been assessed as a product only for the purpose of this certification.

Building classification/s:

Volume 1 – Class 2 - 9 buildings
Volume 2 – Class 1 and Class 10 buildings

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.

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.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

MaxiWall 50mm is used as Internal and External Wall Systems suitable for houses, low rise and high rise multi-residential and commercial buildings. MaxiFloor 50mm is suitable for flooring in houses and multi-residential and commercial buildings.

A2 Description of product

The MaxiWall 50mm and MaxiFloor 50mm AAC Panel is a lightweight steel reinforced (AAC) building panel that is constructed of aerated concrete with a dry density of 510kg/m³ and a centrally located steel mesh reinforcement consisting of 4 x 5mm longitudinal bars and 6-8 transverse bars per linear meter length.

A3 Product specification

Detailed product specifications can be found in the product documents listed in A5 of this certificate.

A4 Manufacturer and manufacturing plant(s)

Zhejiang Hangjiazetong Building Energy Saving New Materials Co., Ltd
Block 4, No. 53 Zhumufan, Yushan Village, Yushan Township, Hangzhou Fuyang District Zhejiang 311419 China

A5 Installation requirements

MaxiWall 50mm and MaxiFloor 50mm AAC Panels shall be installed in accordance with the following manuals:

- Installation Guide BR-005, May 2018 – MaxiWall 50mm (Horizontal), Low-Rise Multi-Residential Buildings & Houses.
- Installation Guide BR-005, May 2018 – MaxiWall 50mm (Vertical), Low-Rise Multi-Residential Buildings & Houses.
- Installation Guide BR-007, May 2019 – Intertenancy & Boundary Wall 50mm, Low-Rise Multi-Residential Buildings & Houses.
- Installation Guide BR-006, December 2019 – MaxiFloor 50mm, Low-Rise Multi-Residential Buildings & Houses.

A6 Other relevant technical data

N/A

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Structural Assessment A2.2(2)(a)/A5.2(1)(e) – A report from a professional engineer – Enertren Pty Ltd. A2.2(2)(a)/A5.2(1)(f) – Other form of documentary evidence – Hangzhou Zetong Building Energy Saving New Material Co Ltd.
2. Combustibility Assessment A2.3(2)(a)/A5.2(1)(e) – A report from a professional engineer – Ignis Labs.
3. Fire Resistance Assessment A2.3(2)(a)/A5.2(1)(d) – A report from an accredited testing laboratory – Exova Warringtonfire (NATA Accreditation #3277) A2.3(2)(a)/A5.2(1)(e) – A report from a professional engineer – Ignis Labs & Ignis Solutions.
4. Fire Hazard Properties Assessment A2.3(2)(a)/A5.2(1)(e) – A report from a professional engineer – Ignis Labs & Ignis Solutions.
5. Weatherproofing Assessment A2.2(2)(a)/A5.2(1)(d) – A report from an accredited testing laboratory – Ian Bennie and Associates (NATA Accreditation # 2371).
6. Acoustic Assessment A2.3(2)(a)/A5.2(1)(e) – A report from a professional engineer – PKA Acoustic Consulting, Koikas Acoustics and CSIRO.
7. Bushfire Assessment A2.3(2)(a)/A5.2(1)(d) – A report from an accredited testing laboratory – Exova Warringtonfire (NATA Accreditation #3277) A2.3(2)(a)/A5.2(1)(e) – Certificate from a professional engineer - Ignis Solutions A2.3(2)(a)/A5.2(1)(f) – Another form of documentary evidence – requirements of AS3959.
8. Energy Efficiency Assessment A2.3(2)(a)/A5.2(1)(e) – A report from a professional engineer – James M Fricker Pty Ltd

B2 Reports

1. **Enertren Pty. Ltd., Ref: PGS-008h V.9 (MaxiWall 50 Horizontal), Engineering Report on MaxiWall 50 AAC Wall Panel System – Horizontal Installation to AS 5146 Part 1, Part 2 and Part 3 (dated 23rd September 2019).**
This report provides the results of testing to AS 5146 Part 1, Part 2 and Part 3 and provides expert opinion on NCC Compliance for structure, fire resistance, weatherproofing and energy efficiency.
2. **Enertren Pty. Ltd., Ref: PGS-008v V.7 (MaxiWall 50 Vertical), Engineering Report on MaxiWall 50 AAC Wall Panel System to AS 5146 Part 1, Part 2 and Part 3 (dated 23rd September 2019).**
This report provides the results of testing to AS 5146 Part 1, Part 2 and Part 3 and provides expert opinion on NCC Compliance for structure, fire resistance, weatherproofing and energy efficiency.
3. **Enertren Pty. Ltd., Ref: PGS-009 V.3a (MaxiFloor), Engineering Report on MaxiFloor 50 AAC Floor Panel to AS 5146 Part 1, Part 2 and Part 3 (dated 23rd September 2019).**
This report provides the results of testing to AS 5146 Part 1, Part 2 and Part 3 and provides expert opinion on NCC Compliance for structure, fire resistance, weatherproofing and energy efficiency.

4. **Hangzhou Zetong Building Energy Saving New Material Co., Compressive Strength and Moisture Content Test Report for 50mm AAC panels (dated 15 December 2017).**
This report provides the tabulated test results of compressive strength and moisture content of 50mm panels and confirms that the product meets the national standard GB15726-2008.
5. **Ignis Labs, IGNL-3016-01 I01 R01, Product Evaluation and Testing for MaxiWall AAC Panel 50mm and 75mm panels (dated 23 February 2019).**
This report is to document the testing to AS1530.1 of the MaxiWall 50mm and 75mm Autoclaved Aerated Concrete Panel and deems the product non-combustible.
6. **Ignis Labs, IGNL-3241-04 I01 R00, Product Testing Report AS 1530.4:2014 for MaxiWall 50mm AAC Panel (dated 18 November 2019).**
This report is to document the fire resistance level (FRL) of the MaxiWall 50mm Autoclaved Aerated Concrete Panel and returned a result of -/120/120.
7. **Ignis Solutions, IGN-6343 Issue 01 Revision 01 (2018), Product Evaluation Report for MaxiWall and MaxiFloor 50mm AAC Floor and Wall Compliance (dated 1 October 2018).**
This report is to document the fire resistance level (FRL) of the MaxiWall and MaxiFloor 50mm Autoclaved Aerated Concrete Panel and shows and FRL of -/120/120 when installed in accordance with the recommendations, or a floor/ceiling FRL of (90)/90/90 when installed using one 13mm and one 16mm, or two 16mm fire rated fire cement sheets.
8. **Ignis Solutions, IGNS-7101 Issue 01 Revision 00 (2018), Ignis Advisory Note for MaxiWall 50mm AAC Zero Lot Boundary Wall System (dated 14 March 2019).**
This report is to document the fire resistance level (FRL) of the MaxiWall 50mm Autoclaved Aerated Concrete Panel and concludes the product is suitable for zero boundary external installations in situations where an FRL of not ore than -/120/120 is required.
9. **Ignis Solutions, IGNS-7318 Issue 01 Revision 00 (2019), Ignis Advisory Note for MaxiWall 50mm AAC Wall Compliance and Air Gap (dated 18 August 2019).**
This report is to document the fire resistance level (FRL) of -/120/120 for the MaxiWall 50mm Autoclaved Aerated Concrete Panel will be maintained with a reduced air gap.
10. **Exova Warringtonfire, Report No. 41705900.4, Test Report to AS 1530.4 (dated 8th August 2018).**
This report is to document the fire resistance level (FRL) of a wall system with 37mm Autoclaved Lightweight Concrete Panel.
11. **Ignis Solutions, IGN-8027 I01 R00, Product and Group Number Assessment to AS 5637.1 for MaxiWall 50mm AAC (dated 21.01.2020).**
This report is to document the fire hazard properties of the MaxiWall 50mm Autoclaved Aerated Concrete Panel and returns a Group Number 1 and an Average Specific Extinction Area of 537.386m²/kg.
12. **Ignis Labs, IGNL-3243-07-02 I01R00, Material Fire Test Certificate for MaxiWall AAC 50mm (dated 21.01.2020).**
This certificate is to document the fire hazard properties of the MaxiWall 50mm Autoclaved Aerated Concrete Panel to AS3837 and returns a result of Group Number 1.
13. **Ian Bennie & Associates, Test Report no. 2016-054-S1, "Geneus 37" 37MM AAC Panel System testing to AS/NZS 4284:2008, (dated 26 September 2016).**
This report provides the results of testing to AS/NZS 4284:2008 for a 37mm AAC Panel and determines that the product complies with the requirements of verification methods V2.2.1 and FV1.
14. **PKA Acoustic Consulting, Acoustic Performance Assessment of MaxiWall 50 AAC Panel – Low Rise Residential to BCA Volume 2 Part 3.8.6.1, ID: PKA104HBG R01v1 (dated 14 February 2019).**
This report provides the airborne acoustic performance for the MaxiWall 50 AAC panel and concludes the panel achieves $R_w + C_{tr} = 29$.