

Certification Body:



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Certificate Holder:



Eastland Building
Materials Co., Ltd
CBN: 91320102558871729E
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Pukou Avenue,
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Certificate number: CM40122

THIS IS TO CERTIFY THAT

Eastland AAC Wall Panel

Type and/or use of product:

Autoclaved Aerated Concrete (AAC) Wall Panel.

Description of product:

A 50mm & 75mm Autoclaved Aerated Concrete (AAC) Wall Panel. Refer A3.

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

BCA 2019 (Amdt. 1)

	Volume One	Volume Two
Performance Requirement(s):	Not Applicable	Not Applicable
Deemed-to-Satisfy Provision(s):	<p>C1.1(b) Contributes to the Fire resistance – 50mm FRL -/90/90 or 75mm FRL -/120/120</p> <p>J1.5 Energy efficiency – External Walls – Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3.</p>	<p>3.12.1.4 Energy efficiency – External Walls – Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3.</p> <p>Part 3.12 (NSW, NT, SA, Qld, Tas, ACT)</p>
State or territory variation(s):	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:

- The Certificate Holder only supplies the panel sections as described herein. It is the responsibility of the installer to ensure compliance of supporting structures and to have the wall system designed and approved by a Registered Professional Engineer.
- Information contained herein or related hereto is intended only for evaluation by technically skilled persons, with any use thereof to be at their independent discretion and risk. 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.
- The installation manual is not referenced and is outside the Scope of Certification.
- This certificate is limited to the details within this certificate including the above compliance elements, product description, purpose or use.
- Other than the items and information listed, the remainder of the information contained in the product's literature is outside the Scope of Certification.
- 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.

Building classification/s:

1,2,3,4,5,6,7,8,9 & 10


Richard Donarski - CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 18/12/2020

Date of expiry: 18/12/2023



Certificate of Conformity

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the Certificate Holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity. This may result in the product being classified as a non-conforming building product.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CertMark International has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page 1.

A2 Description of product

Physical Properties	Thickness (mm)	Width(mm)	Length(mm)
	50	600	2200, 3600
	75	600	1200, 1800, 2200, 2400, 2550, 2700, 2850, 3000 & 3300
Material	Autoclaved Aerated Concrete (AAC) Wall Panel. Reinforced with anti-corrosion steel bars.		

A3 Product specification

Fire Resistance Level (FRL)	50mm AAC Wall Panel, when tested in accordance with AS 1530.4-2014, achieves an FRL of -/90/90.
	75mm AAC Wall Panel, when tested in accordance with AS 1530.4-2005, achieves an FRL of -/120/120
	<i>Source: Intertek Assessment confirming FRL for 50mm -/90/90 & 75mm -/120/120 AAC Panels; Dated 03/09/2020.</i>

Thermal Performance

50mm Eastland AAC Panel

Description of Specimen	Insul Path		Overall	
	Total R, m ² ·K/W	Total R, m ² ·K/W	Total R, m ² ·K/W	Total R, m ² ·K/W
	Winter	Summer	Winter	Summer
514w01 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x45mm pine frames with 90mm R2.00 glasswool insulation	R2.5.5	R2.75	R2.3.3	R2.48
514w011 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x35mm pine frames with 90mm R2.00 glasswool insulation	R2.55	R2.75	R2.37	R2.53
514w012 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (R0.2 thermal break) on 90x35mm pine frames with 90mm R2.00 glasswool insulation	R2.55	R2.75	R2.40	R2.56
514w02 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x45mm pine frames with 90mm R2.50 glasswool insulation	R3.05	R3.25	R2.68	R2.82
514w021 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x35mm pine frames with 90mm R2.50 glasswool insulation	R3.05	R3.25	R2.74	R2.89
514 – 022 - 50mm Eastland AAC Panel (24% M.C.) cavity system with tophats (R0.2 thermal break) on 90x35mm pine frames with 90mm R2.50 glasswool insulation	R3.05	R3.25	R2.79	R2.94

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75mm Eastland AAC Panel

Description of Specimen	Insul Path		Overall	
	Total R, m ² ·K/W	Total R, m ² ·K/W	Total R, m ² ·K/W	Total R, m ² ·K/W
	Winter	Summer	Winter	Summer
514wi01 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x45mm pine frames with 90mm R2.00 glasswool insulation	R2.65	R2.86	R2.44	R2.59
514wi011 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x35mm pine frames with 90mm R2.00 glasswool insulation	R2.65	R2.86	R2.48	R2.64
514wi012 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (R0.2 thermal break) on 90x35mm pine frames with 90mm R2.00 glasswool insulation	R2.65	R2.86	R2.51	R2.67
514wi02 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x45mm pine frames with 90mm R2.50 glasswool insulation	R3.15	R3.35	R2.79	R2.93
514wi021 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (no thermal break) on 90x35mm pine frames with 90mm R2.50 glasswool insulation	R3.15	R3.35	R2.86	R3.01
514wi022 - 75mm Eastland AAC Panel (24% M.C.) cavity system with tophats (R0.2 thermal break) on 90x35mm pine frames with 90mm R2.50 glasswool insulation	R3.15	R3.35	R2.90	R3.05

Notes:

- The above shows determinations based on AS/NZS 4859.1&2:2018/, thermal insulation materials for building “overall” results show reportable Total R after thermal bridging calculations.
- Total Transmittance (U) can be calculated by $U=1/R$
- Data for Eastland AAC Panel (24% M.C.) and 490kg/m³ dry density supported by Intertek Test reports of 8 Jan 2018.
- 90mm R2.0 & R2.5 glasswool insulation rating assumed at 23°C.
- Tophats assumed to be 0.75mm BMT and provide minimum 20mm non-reflective air space.

Source: James M Fricker Pty Ltd; Overall Total R Thermal Performance Calculations; Dated 27/09/2020.

A4 Manufacturer and manufacturing plant(s)

Eastland Building Materials Co., Ltd
2404, Building 4, No.37
Pukou Avenue, Nanjing 210032, China.

A5 Installation requirements

The installation requirements are outside the scope of this Certificate of Conformity.

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A6 Other relevant technical data

Weatherproofing

The AAC Wall Panel was deemed to contribute to weatherproofing as a Unique Wall in accordance with FV1.1(c) & V2.2.1(c). The AAC Wall Panel deviated from the requirements of FV1.1(c) & V2.2.1(c) as a parapet, box gutter and horizontal control joint were not tested.

The configuration tested achieved wind class/pressure zones set by AS 4055-2012 for N1, N2 and N3.

Limitations and Conditions apply as follows:

- (i) A risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table FV1.1 & Table V2.2.1a; and
- (ii) Is not subjected to an ultimate limit state wind pressure of more than 2.5 kPa; and
- (iii) Includes only windows that comply with AS 2047:2014

A sarking barrier is deemed necessary to prevent the transfer of moisture to internal surfaces and materials

A parapet, box gutter and horizontal control joint were not tested

Source: Vipac Engineers and Scientists Limited test report 30B-20-0125-TRP-6795983-2 dated 15/12/2020.

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. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.

B2 Reports

1. Intertek; CNAS Accreditation No. L3770; Test report 161013002SHF-BP-5; Tested in accordance to AS 1530.4:2014 FRL -/90/90 for 50mm AAC Panel. Compliance to Fire provision; Dated 07/11/2016.
2. Intertek; CNAS Accreditation No. L3770; Test report 141229003SHJ-BP-1; Tested in accordance to AS 1530.4:2005 FRL -/120/120 for 75mm AAC Panel. Compliance to Fire provision; Dated 02/02/2015.
3. Intertek Report: Assessment confirming FRL for 50mm -/90/90 & 75mm -/120/120 AAC Panels; Dated 03/09/2020.
4. James M Fricker Pty Ltd; Overall Total R Thermal Performance Calculations; Dated 27/09/2020.

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