

Certificate number: CM40238

Certification Body:


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Certificate Holder:


 New Era Block Tile Joint
 Stock Company
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 Vietnam
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THIS TO CERTIFY THAT

E-PANEL

Type and/or use of product:

Autoclaved Aerated Concrete (AAC) wall panel.

Description of product:

Reinforced AAC is a precast building element, usually in the form of panels, consisting of cured AAC material and welded steel reinforcing mesh.

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

BCA 2016

	Volume One (Amdt. 1)		Volume Two	
Performance Requirement(s)	BP1.1(a) & (b)(iii)	Structure - Structural stability and resistance to actions	P2.1.1(a) & (b)(iii)	Structure - Structural stability and resistance to actions
	FP1.4	Damp and Weatherproofing	P2.2.2	Damp and Weatherproofing-Weatherproofing
Deemed-to-Satisfy Provision(s):	A2.3	Fire Resistance of Building Elements – Refer A5	Part 1.2.3	Fire Resistance of Building Elements – Refer A5
	F5.5(a)(i)&(c)	Sound Transmission and Insulation- Sound insulation rating of walls - (Class 2 or 3 buildings)	3.8.6.2	Sound insulation - Can contribute to total R _w value of walls - Refer A3
	F5.6(a)(i)&(ii)	Sound Transmission and Insulation- Sound insulation rating of internal services - (Class 2 or 3 buildings)	3.12.1.4	Energy Efficiency - Wall Construction- contribute to total R Value - Refer A3
	Spec J1.5	Energy Efficiency - Wall Construction- contribute to total R Value – Refer A3		
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:

- To be installed in accordance with the relevant installation manuals listed in A5 below.

Building classification/s:

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


John Thorpe - CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 27/09/2018

Date of expiry: 27/09/2021



Certificate of Conformity

2. To achieve an FRL of -/90/90 a layer of 13mm standard grade plasterboard is to be directly affixed to the entire internal side of the wall system. A fire rating level of -/60/90 should be applied without the inclusion of the plasterboard lining.
3. Fixing of the panel to the top and bottom of the panel by a 50mm x 50mm x 0.8mm angle at 600mm centres. The external low-rise is suitable to be fixed to the building frame by steel tophats.
4. The joints between the panels are to be joined together using Dunlop AAC Block Adhesive or equivalent approved adhesive.
5. Gaps between the panel and any joints is to be no greater than 15mm and sealed with a fire rated sealant as indicated in the attached drawings.
6. The waterproofing systems for all panels is dependent on window, door and other penetration frames being designed, constructed and installed in accordance with manufacturers recommendations to enable adequate flashing and sealing to the building.
7. 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.
8. This Certificate is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate is outside of this document's scope and the installation of the certified product/system will not be covered by this CodeMark certification. This may result in the product being classified as a non-conforming building product/system.

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

Autoclaved Aerated Concrete (AAC) wall panel.

A2 Description of product

Reinforced AAC is a precast building element, usually in the form of panels, consisting of cured AAC material and welded steel reinforcing mesh.

A3 Product specification

Panel Properties

Reinforced Panel

Thickness	D	75mm
Ultimate bending capacity	ϕM_k	0.6kNm/m
Thermal resistance		0.51 R-Value
Density for design	$\rho_{d,sup}$	634kg/m ³
	$\rho_{d,inf}$	521 kg/m ³
Density for transport	$\rho_{d,trans}$	782 kg/m ³

AAC Material

Dry density	$P_{m,g}$	530 kg/m ³
Compressive Strength Characteristics	f_{ck}	2.5 MPa
Thermal Expansion coefficient		$8.0 \times 10^{-6}/^{\circ}\text{C}$

Reinforcement

Bar size	ϕ_{s1}	5mm \emptyset
Number of longitudinal bars	n	4
Bar corrosion protection		Sand-loaded viscous paint



Certificate of Conformity

A4 Manufacturer and manufacturing plant(s)

NEW ERA BLOCK TILE JOINT STOCK COMPANY

Lot E3-E4-E5-E6, Str. No.5,
Thinh Phat Industrial Zone
Luong Binh commune
Ben Luc District
Long An province, Vietnam

A5 Installation requirements

To be installed in accordance with the relevant installation manuals:

- [Internal Wall System for High-rise building applications, Version 4 April 2018;](#)
- [Internal Party Wall System for Low-rise building applications, Version 7 August 2018;](#)
- [External Wall System for Low-rise building applications, Version 7 August 2018;](#)
- [External Wall System for High-rise building applications, Version 4 April 2018.](#)

In relation to waterproofing as per NCC Verification Method V2.2.1, windows must be compliant with AS 2047-2014.

To achieve an FRL of -/90/90 a layer of 13mm standard grade plasterboard is to be directly affixed to the entire internal side of the wall system. A fire rating level of -/60/90 should be applied without the inclusion of the plasterboard lining

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Structural Provision – A2.2(a)(v) and 1.2.2(a)(iii). Reports from Qualified Professional Engineers.
2. Characteristic Type Testing(weatherproofing) – A2.2(a)(iv) and 1.2.2(a)(i). Reports from accredited test laboratories.
3. Fire Assessment – A2.2(a)(iv)&(v) and 1.2.2(a)(i)&(iii). Reports from accredited test laboratories and Qualified Professional Engineers.
4. Acoustic Properties – A2.2(a)(v) and 1.2.2(a)(iii). Reports from an appropriately qualified person.
5. Thermal Properties – A2.2(a)(v) and 1.2.2(a)(iii). Reports from an appropriately qualified person.

B2 Reports

1. PKA Acoustic Consulting; Report Number PKA-A188v2; Acoustic Assessment of E-Panel; Dated 09/08/2017.
2. PKA Acoustic Consulting; Report Number PKA-A194v1; Acoustic Assessment of E-Panel; Dated 21/09/2017.
3. CSIRO; Measurement of Airborne Sound Insulation; Testing Report Numbers TL604-01-1, TL604-02-1, TL604-03-1, TL604-04-1 & TL604-05-1; Dated 03/05/2017.
4. IGNIS Solutions; Evaluation Number 4272 I01R02; Evaluation of AS 1530.4-2014 testing to determine a FRL -/90/90; Dated 17/07/2017.
5. IGNIS Solutions; Evaluation Number 5242 I01R02; Evaluation of joint details against AS 1530.4-2014 testing; Dated 17/07/2017.
6. CSIRO; Report Number FSV 1782; Fire-resistance test on a non-load-bearing vertical separating element; Dated 09/12/2016.
7. Building Products Certification; Reference Number 0335B-R2B; Structural test analysis report of 75mm E-Panel; Dated 27/09/2017.
8. VENN Engineering; Reference Number VE-EBL100v1; NCC structure compliance report for E-Block 75mm reinforced AAC panel; Dated 07/08/2018.
9. James M Fricker Pty Ltd; Report Number i461a; Thermal calculation of 75mm E Panel; Dated 28/05/2017.
10. CSIRO; Report Number XC3397/R1a; Thermal transmission properties of E Panel; Dated 21/03/2017.
11. Ian Bennie and Associates; NATA Accreditation Number 2371; Report Number 2017-027-S1; Testing to AS/NZS 4284:2008 of 75mm E-Panel reinforced AAC panel; Dated 10/07/2017.

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