

## **Certification Body:**

## CM ABN: 81 663 250 815 JAS-ANZ Accreditation No. Z4450210AK PO Box 273, Palmwoods Qld 4555 Australia P: +61 7 5445 2199 www.cmicert.com.au

Type and/or use of product: applications including Zero Boundary Walls.

## Certificate number: CM40326

## THIS IS TO CERTIFY THAT

## NASAHI Low Rise External Wall Cladding System

## **Description of product:**

A system for use on Low Rise External walls in load-bearing and non-load bearing

Low-Rise External Wall comprising several proprietary components including non-load bearing steel reinforced Autoclaved Aerated Concrete (AAC) panels. Refer A2 below.

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

**BCA 2022** 

office@cmicert.com.au		Volume One		Volume Two				
	Performance Requirement(s):	B1P1(2)(c)	Structural reliability.	H1P1(2)(c)	Structura	l stability and resistance.		
Certificate Holder:		F1P4	Rising damp – Subject to Limitation and Condition 1 & 12.	H2P2	Weather	proofing – Subject to <i>Limita</i>	tion and Condition	on 4.
<b>Dillong Smarter</b>		F3P1	Weatherproofing – Subject to Limitation and Condition 4.	H2P3	Rising da	mp – Subject to <i>Limitation</i> o	and Condition 1 8	& 13.
AAC Building Products Pty Ltd T/A NASAHI		F8P1	Condensation and water vapour management – Limited to Zero Lot Installations subject to <i>limitation and condition 9</i>	H4P7		ation and water vapour man		ed to Zero Lot
ABN: 74621069207 1331 Stud Road	Deemed-to-Satisfy Provision(s):	C2D2(2)	Fire Resistance and Stability – FRL varies, dependant of the configuration of the wall. Refer <i>Limitation and Condition 6.</i>	H3D3		n from the Spread of Fire - tion of the wall. Refer <i>Limi</i> t	, ,	
Rowville, Victoria 3178 Australia Ph: 1300 26 27 24		C2D10	Non-combustible building elements – Panel Only - Refer A3.	H4D9	Condensa 10.	ation Management – Subjec	ct to <i>limitation a</i>	าd condition
www.nasahi.net.au		C2D11(1)(g) & (i)	Fire hazard properties – Subject to Limitation and Condition 7 & 8.	H7D4	Construct condition	tion in bushfire prone areas 11 & 12.	s – Subject to <i>lim</i>	itation and
		F8D3	Condensation Management – Subject to <i>limitation and condition</i> 10.	H6D2	0,	ficiency – External Walls. N er building elements to achi		
		G5D3	Construction in bushfire prone areas – Subject to <i>limitation and condition 11 &amp; 12</i> .					
		J4D6	Energy Efficiency – External Walls. Must be used in conjunction with other building elements to achieve a Total R Value.					
	State or territory variation(s):	F1P4 (SA), G5D3 (NSW), J4D6 (NSW)		H2P3 (SA, NSW	/), H7D4 (N	ISW, Qld)		
Gentugen		Ę	-P-	Date of is	sue:	14/02/2025	۲	JAS-ANZ
Glen Gugliotti – CM	I	Doi	n Grehan – Unrestricted Building Certifier	Date of ex	kpiry:	14/02/2028	ABCB	WWW.JAS-ANZ.CRG/REDISTER



Certificate number: CM40326-I02-R00

This certificate is only valid when reproduced in its entirety. Page 1 of 11



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

### Limitations and conditions:

## Building classification/s:

- 1. Construction shall be in strict accordance with the Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: Class 1,2,3,4,5,6,7,8,9 & 10 <u>February 2025</u> Refer A5.
- 2. In all cases, it is a requirement that the Nasahi Low-Rise External Wall System Cladding System incorporates either;
  - a. A timber frame constructed in accordance with AS 1684-2010 series; or
  - b. A cold-formed steel frame constructed in accordance with AS 3623-1993 (R2018), or
  - c. NASH Standard for Residential and Low-rise Steel Framing, Part 1: Design Criteria; or
  - d. A supporting Structure compliant with other standards as applicable.

The structural support members are designed and engineered separately as per project requirements by building designers and engineers.

- 3. The Nasahi Low-Rise External Wall System has not been tested and certified for impact loading from windborne debris in Region C and D as denoted in AS 1170.2:2021. The building designer should take into consideration internal pressure resulting from dominant openings.
- 4. To satisfy F3P1 and H2P1 via the Verification Method provided in the NCC, the relevant design is required to meet the criteria of F3V1/H2V1 to the satisfaction of the Appropriate Authority as defined by the NCC. The site specific building must;
  - (a)(i) have a risk score of 20 or less, when the sum of all risk factors are determined in accordance with Table F3V1a/H2V1a; and
  - (a)(ii) not be subjected to an ultimate limit state wind pressure of more than 2.5kPa; and
  - (a)(iii) include only windows that comply with AS 2047.

For Waterproofing applications that exceed 2.5kPa ultimate limit state wind pressure, and do not exceed 5.3kPa ultimate limit state wind pressure, refer to A3.

- 5. Where the NCC requires building elements and/or ancillary elements to be non-combustible or achieve specific fire resisting performance requirements, the NASAHI Low Rise External Wall Cladding System must be constructed to satisfy such requirements as relevant to the determined building class(es).
- 6. Compliance with FRL is dependent on the system components being as specified in A3. Any deviation from the tested specimen does not form part of this certificate of conformity.
- 7. Nasahi Low-Rise External Wall Cladding System must only incorporate sarking-type materials that comply with the requirements of AS 4200.1:2017, including an AS 1530.2-1993 Flammability Index not greater than 5. Sarking type material that meets this specification complies with Table S7C7 requirement to have a Flammability Index not exceeding 5.
- 8. Where required, Nasahi Low-Rise External Wall Cladding System must only incorporate insulation materials that conform with the requirements of AS/NZS 1530.3-1999, with a Spread of Flame Index not greater than 9, and a Smoke Development Index not greater than 8 if the Spread of Flame is more than 5. Where required to be non-combustible; the insulation must comply with AS 1530.1-1994.
- 9. When being installed in a Zero Lot configuration, compliance with F8P1 & H4P7 Condensation and water vapour management is satisfied via verification method F8V1 & H4V5, refer A3.
- 10. Compliance for Part F8D3 of Vol 1 or Part H4D9 of Vol 2 of the 2022 BCA for Condensation management requires a pliable building membrane complying with AS 4200.1:2017 must be installed in accordance with AS 4200.2:2017 to separate the wall cladding panels from any water sensitive materials. Refer A5 Installation requirements.
- 11. In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959:2018.
- 12. Compliance with BAL-FZ is limited to the requirements of Section 9.1 of AS 3959:2018 and requires a minimum distance of 10m from the edge of any classified vegetation. This product is not suitable to be installed where the 10m setback distance between the building and the edge of the classified vegetation cannot be achieved.
- 13. When installing the panel, the minimum clearance between the underside of the panel and the adjoining surface level below, Installation must follow the requirements of the <u>Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: February 2025</u> and the Technical drawings. Refer A5.
- 14. 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.

**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, CMI Certification Pty Ltd (CMI) 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

Nasahi Low-Rise External Wall Cladding System is an aerated autoclaved concrete (AAC) lightweight precast panel-style system, installed horizontally and mechanically fixed directly to the outer face of suitable wall framing. Nasahi Panels for external wall applications are steel reinforced AAC manufactured from lightweight, reinforced, autoclaved aerated concrete, Nasahi<sup>®</sup> Panels are available in standard density (SD)( 590kg/m<sup>3</sup>) and low density (LD)(490kg/m<sup>3</sup>) of nominal density, and thicknesses of 50mm, 62mm & 75mm. A single layer of corrosion protected steel mesh is embedded into panels supplied in standard widths of 600mm, with lengths of 2200mm (typical), up to 3300mm. Panels may be cut to size and may be joined off-stud subject to the panel layout guidelines.

50mm	62mm	75mm
0.36	0.45	0.53
-	-	0.48
39kg	48kg	58kg
-	-	49kg
	0.36 - 39kg	0.36 0.45   - -   39kg 48kg

## **A3 Product specification**

## **Fixing Requirements**

Nasahi Panels (excluding "Boundary Walls") shall be fixed in accordance with the following table:

Wind Classification (AS 4055)	Design Ultimate Wind Pres	sure AS/NZS 1170.2 (kPa)	Max. Stud/Batten Spacing	Number of Fasteners Per Panel in Each Batten		
Wind Classification (AS 4055)	Within 1200mm from corners	Over 1200mm of corners	(mm)	Within 1200mm from corners	Over 1200mm of corners	
N1, N2, N3, C1	+1.05/-1.95	+1.05/-0.98	600	2*	2*	
N4, C2	+1.56/-2.90	+1.56/-1.45	600	3	2*	
N5, C3	+2.30/-4.27	+2.30/-2.14	450	3	3	

Note: \* Where panels are not supported at their base (e.g., slab edge or shelf angle), increase the Number of Fasteners Per Panel in Each Batten to 3.

Boundary Wall applications are detailed in <u>Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: February 2025</u>, pages 36 to 39 & Details 12.1, 12.2, 12.3, 12.4, 13.1 & 13.2 (pages 58 & 59). Nasahi Panels are fixed (using 12G x 45mm Hex Head Screws, min. 2 per panel per batten at 100mm from each edge and maximum 400mm spacing) to 16mm galvanised steel battens spaced horizontally at max. 600mm centres. The 16mm galvanised steel battens are attached to Rondo 314 clips (at maximum 1200mm vertical spacing) located at the top plate, noggin and bottom plate.

## **Condensation Management**

As required by F8D3 & H4D9, Nasahi Low-Rise External Wall Cladding System, incorporates a vapour permeable pliable building membrane in accordance with AS/NZS 4200.1:2017, installed in accordance with AS 4200.2:2017 and the <u>Nasahi Low-Rise External Wall System</u>, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: February 2025.

### Australia Condensation Management

CODEMARK

## When used in a Dual Zero Lot configuration -

Speckel Consulting has been appointed by AAC Building Products Pty Ltd to undertake a 1D hygrothermal assessments of typical and dual zero boundary wall systems in Sydney, Melbourne, Darwin and Hobart. The primary aim of this assessment is to compare the annual moisture profiles in 1D modelling to align a level of condensation risk against 'worst case' external and internal moisture scenarios.

	Climate Zone	Locality	Wall Type	Panel Thickness	Mould Growth Index < 3.0
	5	Sudnov Dorth	Boundary		Pass
	5	Sydney, Perth	Typical External	_	Pass
	C	Mallasura Darth	Boundary	_	Pass
	6	Melbourne, Perth	Typical External		Pass
A typical 3 bedroom	7	Habart Carbarra	Boundary		Pass
Class 1 of 260 m <sup>3</sup>		Hobart, Canberra	Typical External	-	Pass
		Darwin	Boundary		Pass
	1, 2 & 3	(Brisbane and Alice Springs)	Typical External		Pass

	Climate Zone	Locality	Wall Type	Panel Thickness	Mould Growth Index < 3.0	
	Г	Suda ou Dorth	Boundary		Pass	
	5	Sydney, Perth	Typical External		Pass	
	6 Melbo	Malhaurna Darth	Boundary		Pass	
		Melbourne, Perth	Typical External		Pass	
A typical 2 bedroom	7 Hobart, Canberra	Lishart Carbarra	Boundary		Pass	
Class 2 of 168 m <sup>3</sup>		Typical External		Pass		
		Darwin	Darwin Bc	Boundary		Pass
	1, 2 & 3	(Brisbane and Alice Springs)	Typical External	· · ·	Pass	

Source: Fabric First Hygrothermal Assessment FF0101 dated 20/11/2020. & Speckle Consulting Pty Ltd, Report 0259(02); Dated 27/11/2024.

## When used in an External Wall configuration -

Wall wrap in accordance with AS/NZS 4200.1:2017 must be used with the Nasahi<sup>®</sup> External Wall System to ensure a cavity is maintained between the Nasahi<sup>®</sup> Panel and insulation, which further improves the energy efficiency of the system.

The wall wrap must comply with relevant condensation management provisions of the NCC and be installed in accordance with AS 4200.2:2017 including taping at all joins and edges.

Source: Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: February 2025.



Weatherproofing – External Wall

Testing was conducted in accordance with AS/NZS 4284:2008 and Verification Methods F3V1 and H2V1 for Nasahi 50mm External Wall System.

Test Type		Criteria		Results
Static Pressure Wind Load	•	erviceability limit state p the specimen for period	ressures were applied to the ds of 1 minute each.	Pass The loads were sustained and there was no visible evidence of any cracking in the cladding
Statis Pressure Water Test	Static @ 30%	490Pa	Duration 15 Minutes	Pass No leakage though the cladding was observed during the test.
Cyclic Pressure Water Test	Cyclic @ 15 – 30% Cyclic @ 20 – 40% Cyclic @ 30 – 60%	245 – 490 Pa 325 – 650 Pa 490 – 980 Pa	Duration 5 Minutes Duration 5 Minutes Duration 5 Minutes	Pass No leakage through the cladding system was observed during the test.
Cyclic Pressure Water Test with 6mm Holes in cladding	Cyclic @ 15 – 30% Cyclic @ 20 – 40% Cyclic @ 30 – 60%	245 – 490 Pa 325 – 650 Pa 490 – 980 Pa	Duration 5 Minutes Duration 5 Minutes Duration 5 Minutes	Pass No leakage through the cladding system was observed during the test.
Static Pressure Water Test with Lining Removed.	Static @ 30%	490Pa	Duration 15 Minutes	Pass No leakage through the cladding system was observed during the test.

Source: Ian Bennie & Associates Pty Ltd Report 2015-102-S1 Dated 22/01/2016.

## Weatherproofing for buildings with designs of more than $\pm 2.5$ kPa up to $\pm 5.3$ kPa.

The weatherproofing performance of Nasahi Low-Rise External Wall Cladding System (excluding "Boundary Walls") installed in applications where an external wall;

- (i) has a risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table F3V1a (Volume One) or Table H2V1a (Volume Two); and
- (ii) is subjected to an absolute ultimate limit state wind pressure of more than 2.5 kPa but not more than ±5.3kPa (Refer Section 4.1.2 of ACA report 210118 dated 4/2/2025 for the specific configuration requirements applicable to this case); and
- (iii) includes only windows that comply with AS 2047;

has been verified by a combination of prototype testing in accordance with the requirements of AS/NZS 4284, wind strength testing of the Nasahi Low-Rise External Wall Cladding System and other documentary evidence.

In all cases, Nasahi Low-Rise External Wall Cladding System (excluding "Boundary Walls") is limited to maximum design serviceability limit state wind pressures equal to the tested values of ±1.65 kPa, and maximum design ultimate limit state wind pressures of ±5.3 kPa.

Source: Acroenm Consulting Australia Pry Ltd report ACA Report No. 210118 page 23; Dated 4/02/2025 & Clarkson Consulting Services Pty Ltd / Report No. V1.1\_240530\_EW, Dated 30/05/2024.



## Weatherproofing – Boundary Wall

Testing was conducted in accordance with AS/NZS 4284:2008 and Verification Methods F3V1 and H2V1 for Nasahi 50mm Zero Boundary Wall.

Test Type		Criteria		Results
Static Pressure Wind Load			ssures were applied to the Ite each +803 Pa / - 1211 Pa	Pass The loads were sustained and there was no visible evidence of any cracking in the cladding
Statis Pressure Water Test	Static @ 30%	490Pa	Duration 15 Minutes	Pass No leakage though the cladding was observed during the test.
Cyclic Pressure Water Test	Cyclic @ 15 – 30% Cyclic @ 20 – 40% Cyclic @ 30 – 60%	85 – 165 Pa 110 – 220 Pa 165 – 330 Pa	Duration 5 Minutes Duration 5 Minutes Duration 5 Minutes	Pass No leakage through the cladding system was observed during the test.

Source: Ian Bennie & Associates Pty Ltd Report 2020-093-S2 Dated 19/02/2021.

## C2D10 Non-combustibility

Test for Combustibility for Materials in accordance with AS 1530.1:1994 for Nasahi 50mm Autoclaved Aerated Concrete (AAC) Dry Density 503.16kg/m<sup>3</sup>. The material is NOT deemed combustible - Limited to the panel only.

Source: Exova Warringtonfire, Test Report No. 365312-00.1 dated 25/08/2015.

Compliance with C2D10 is limited to the AAC panel as tested in accordance with AS 1530.1-1994 and other elements of the Nasahi Low-Rise External Wall Cladding System including:

- gaskets, caulking, sealants, damp-proof courses, that are addressed in C2D10(4) are not required to be non-combustible; and,
- plasterboard, and sarking-type materials that do not exceed 1mm in thickness and have a flammability index of not greater than 5, that are addressed in C2D10(6) may be used wherever a non-combustible material is required; and,
- Installation of coating systems to the external face of an external wall must be in accordance with <u>Nasahi Low-Rise External Wall System</u>, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, <u>Edition: February 2025</u>.

## **Bushfire performance**

The Nasahi Low-Rise External Wall Cladding System using the 50mm AAC panel achieves a minimum FRL of 30/30/30 as part of an external wall to achieve a bushfire resistance performance of BAL – FZ.

Installation for bushfire resistance must be in accordance with the FRL constructions outlined in the <u>Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition:</u> Febuary 2025.

Source: Warringtonfire Pty Ltd, Report No. FAS190135, Revision 6.4 dated 22/08/2023 & AS 3959 Construction of buildings in bushfire-prone areas. & Assurance Construction Testing and Certification Pty Ltd, Report No. ACTC-8363-99R I02R00, Dated 20/11/2024



Australia

Fire resistance and stability - Fire separation of external walls

<b>Construction Arrangement from Outside to Inside</b>	FRL from outside	*Internal Lining/Plasterboard	FRL from inside
Neach: Device / Comm. Comm. or 75 mm.)		10mm standard plasterboard	//
Nasahi Panel (50mm, 62mm or 75mm)		1 x 13mm Boral Firestop plasterboard	30/30/30
H Grade EPS battens	60/60/60	1 x 16mm Boral Firestop plasterboard	60/60/60
Min 70mm deep timber or min 76mm deep steel stud wall framing Internal plasterboard*		2 x 13mm Boral Firestop plasterboard	90/90/90
		3 x 13mm Boral Firestop plasterboard	120/120/120
		10mm standard plasterboard	//
Nasahi Panel (50mm, 62mm or 75mm) H3 Treated Pine Timber battens		1 x 13mm Boral Firestop plasterboard	30/30/30
	90/90/90	1 x 16mm Boral Firestop plasterboard	60/60/60
Min 70mm deep timber or min 76mm deep steel stud wall framing Internal plasterboard*		2 x 13mm Boral Firestop plasterboard	90/90/90
		3 x 13mm Boral Firestop plasterboard	120/120/120
Nearly David (50mm, 60mm, an 75mm)		10mm standard plasterboard	//
Nasahi Panel (50mm, 62mm or 75mm) Steel Battens		1 x 13mm Boral Firestop plasterboard	30/30/30
Min 70mm deep timber or min 76mm deep steel stud wall framing	120/120/120	1 x 16mm Boral Firestop plasterboard	60/60/60
Internal plasterboard*	ng 60/60/60 1 x 13mm Boral Firestop plasterboard 30, 1 x 13mm Boral Firestop plasterboard 60, 2 x 13mm Boral Firestop plasterboard 90, 3 x 13mm Boral Firestop plasterboard 90, 3 x 13mm Boral Firestop plasterboard 30, 1 x 16mm Boral Firestop plasterboard 30, 1 x 13mm Boral Firestop plasterboard 60, 2 x 13mm Boral Firestop plasterboard 90, 3 x 13mm Boral Firestop plasterboard 120/	90/90/90	
		3 x 13mm Boral Firestop plasterboard	120/120/120
Nasahi Panel (50mm, 62mm or 75mm) Steel Battens Min 70mm deep timber or min 76mm deep steel stud wall framing Internal Lining*	120/120/120	Nasahi Panel (50mm, 62mm or 75mm)	120/120/120

Note: For construction of the framing and installation requirements of the internal linings as per manufactures and engineering specifications.

Source: Warringtonfire Pty Ltd, Report No. FAS190135, Revision 6.4 dated 22/08/2023 & Assurance Construction Testing and Certification Pty Ltd, Report No. ACTC-8363-99R 102R00, Dated 20/11/2024



**Energy Efficiency** 

Nasahi Panel Thickness (mm)	Batten Depth (mm)	Structu	ral Frame	Bulk Insulation (R-Value)	Internal Lining	Total R-Value (Thermally Bridged) (M <sup>2.</sup> K/W)		
		Type & Spacing	Stud Size			Winter	Summer	
			70x35	-		R1.49	R1.44	
50.0.00				R2.00		R2.66	R2.51	
50 & 62				90x45	R2.50		R3.01	R2.87
	46 24 25	Timb on at COO at a		R3.00	10mm	R3.33	R3.22	
	16, 24 or 35	Timber at 600cts	70x35	-	plasterboard	R1.68	R1.65	
				R2.00		R2.87	R2.72	
75			90x45	R2.50		R3.23	R3.09	
				R3.00		R3.56	R3.44	
			70x35	-		R1.48	R1.44	
50.0.00				R2.00	10mm	R2.61	R2.47	
50 & 62			90x45	R2.50	plasterboard	R2.94	R2.81	
		Timber at 450cts		R3.00		R3.23	R3.13	
	16, 24 or 35		70x35	-		R1.68	R1.65	
			90x45	R2.00	-	R2.82	R2.68	
75				R2.50		R3.16	R3.03	
				R3.00		R3.46	R3.35	
			76x35x0.55BMT	-	10mm plasterboard	R1.39	R1.35	
50 8 62			92x45x0.55BMT	R2.00		R2.24	R2.13	
50 & 62				R2.50		R2.48	R2.38	
	46 24 25	Steel at 600cts		R3.00		R2.69	R2.61	
	16, 24 or 35		76x35x0.55BMT	-		R1.59	R1.56	
75			92x45x0.55BMT	R2.00		R2.51	R2.39	
75				R2.50		R2.78	R2.67	
				R3.00		R3.02	R2.93	
			76x35x0.55BMT	-		R1.37	R1.33	
F0 9 60				R2.00	10mm	R2.15	R2.05	
50 & 62			92x45x0.55BMT	R2.50		R2.35	R2.27	
	16 24 or 25	Steel at 450ate		R3.00		R2.35	R2.46	
	16, 24 or 35	Steel at 450cts	76x35x0.55BMT	-	plasterboard	R1.58	R1.55	
75				R2.00		R2.42	R2.31	
75			92x45x0.55BMT	R2.50		R2.66	R2.56	
				R3.00		R2.86	R2.79	

Source: James M Fricker Report No. i449cm; Thermal calculations of NASAHI® residential external wall systems; Dated 25/04/2020 & Clarkson Consulting Services, Report No. NAS\_24\_75 Thermal01\_v2.0 Dated 14/6/2024

Certificate number: CM40326-I02-R00



### A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact the Certificate Holder for details.

## **A5 Installation requirements**

Only to be installed in accordance with Nasahi Low-Rise External Wall System, Horizontal Design and Installation Guide, 50mm, 62mm, 75mm, Edition: February 2025.

## When Nasahi AAC products are installed with their base at or below grade, the following conditions must apply:

- 1. The maximum depth of embedment of Nasahi AAC products below grade is 100mm (ie no more than 100mm above the lowest part of the Nasahi AAC).
- 2. Nasahi AAC products must not be used to retain garden beds, earth, soil or other organic matter, Nasahi AAC is not to be used as any part of a retaining wall structure.
- 3. The base of the Nasahi AAC product must be coated with "Nasahi Base Sealer" prior to installation.
- 4. The external vertical face of the Nasahi AAC product must be coated with "Nasahi Base Sealer" up to 150mm above the exposed part of the panel (above pavement level and/or FGL) after installation but prior to render coating, covering the panel to panel joints.
- 5. To promote drying of the soil and subsurface adjacent to the external wall, drainage of the Finished Ground Level (and pavements) must fall away from the building at a minimum grade of 1:100.
- 6. Even when coated, the builder must ensure external walls are not constantly wet and all stormwater is directed away from the building and external AAC panels.
- 7. Details shown on Nasahi drawing "Base Panel Details" Detail no 1.1, dated 22 May 2023 shall apply.
- 8. DPC must be installed to maintain a continuous damp barrier around the perimeter of the building and the wall cavity must be closed.
- 9. Suitable Termite protection (ie reticulation system) must be installed in accordance with AS3660.1 and maintained in accordance with AS3660.2, all soil adjacent to any Nasahi AAC panel below grade must be suitably treated for Termite control.

Installation when below grade to following the following technical details:

- Nasahi Slab Edge Detail 1.0 Dated 17/10/2022
- Nasahi Slab Edge Detail 1.1 Dated 29/05/2023

Source: Clarkson Consulting Services Pty Ltd, Report for Installation at or Below Grade; Dated 13/06/2023.

### A6 Other relevant technical data

## **C2D13 Fire-Protected Timber**

Where Timber framing is required to be Fire-Protected, two layers of 13 mm thick, fire-protective grade plasterboard on the internal side, is compliant in a building with a height less than 25m and is provided with a sprinkler system. Timber framing is acceptable when installed as per the Nasahi external wall installation guide, and in accordance with the NCC C2D13 fire protected timber concession.

*Source:* TC Fire Engineering Repo TCFE0011 revision 4 dated 07/07/2021.



## **APPENDIX B – EVALUATION STATEMENTS**

### **B1** Evaluation methods

- 1. Structural Provisions A5G3(1)(e). Reports from a professional engineer.
- 2. Fire Safety Provisions A5G3(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
- 3. Thermal Provisions A55G3(1)(e). Reports from a professional engineer.
- 4. Weatherproofing Provision A5G3(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.

## **B2** Reports

- Acronem Consulting Pty Ltd; Report 210118; Nasahi Low-Rise External Wall Cladding System NCC 2022, Volumes One & Two External Walls; Dated 04/02/2025. The report provides compliance towards the following clauses: B1P1, H1P1, F1P4, H2P3, F3P1, H2P2, C2D11, F8D3, H4D9, J4D6 & H6D2.
- 2. Ian Bennie & Associates Pty Ltd; NATA Accreditation No. 2371; Report 2015-102-S1; Nasahi 50mm Wall System NCC 2015 Verification Methods FV1 & V2.2.1; Dated 22/01/2016. This report provides compliance towards the following clauses: F3P1 & H2P2.
- 3. Ian Bennie & Associates Pty Ltd; NATA Accreditation No. 2371; Report 2020-093-S2; Nasahi 50mm Wall System Zero Boundary Wall NCC 2019 Verification Methods FV1 & V2.2.1; Dated 19/02/2021. This report provides compliance towards the following clauses: F3P1 & H2P2.
- 4. James M Fricker Pty Ltd; Report No. i449cm; Thermal calculations of NASAHI® residential external wall systems; Dated 25/04/2020. This report provides compliance towards the following clauses: J4D6 & H6D2.
- 5. Exova Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; Report No. 365312-00.1; Testing in accordance with AS1530.1-1994; Dated 25/08/2015. This report provides compliance towards the following clauses: C2D10.
- 6. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; Report No. FAS190135, Revision 6.4, NASAHI Super 50 AAC external and boundary wall systems to AS 1530.4:2014; Dated 22/08/2023. This report provides compliance towards the following clauses: C2D2, H3D3, G5D3 & H7D4.
- TC Fire Engineering; Report No. TCFE0011, Revision 4; NASAHI External Wall System Fire Safety Report; Dated 07/07/2021. This report provides compliance towards the following clauses: C2D2, H3D3, G5D3, H7D4.
- 8. Fabric First Hygrothermal Assessment FF0101 dated 20/11/2020. This report provides compliance towards the following clauses: F8D3 & H4D9.
- 9. Clarkson Consulting Services Pty Ltd, Report for Installation at or Below Grade; Dated 13/06/2023. This report provides compliance where the panel is to be installed below grade.
- 10. Clarkson Consulting Services Pty Ltd, Report No. NAS\_24\_75 Thermal01\_v2.0, Dated 14/6/2024. This report provides compliance towards the following clauses: J4D6 & H6D2.
- 11. Assurance Construction Testing and Certification Pty Ltd, IAS accreditation TL-1162, Report No. ACTC-8363-99R I02R00, Dated 20/11/2024. This report provides compliance with C2D2, H3D3, G5D3 & H7D4.
- 12. Speckle Consulting Pty Ltd, Report 0259(02) Hygrothermal Assessments; Dated 27/11/2024. This report provides compliance with F8P1 & H4P7 through the Verification method for Zero Lot configurations.

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