



Certificate of Conformity

Certificate number: CM40329 Rev1

Certification Body:



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Certificate Holder:



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THIS IS TO CERTIFY THAT

Nasahi Flooring System

Type and/or use of product:

Flooring system for residential and multi-residential application.

Description of product:

A flooring system for residential and multi-residential application incorporating Nasahi 50, 62 or 75mm AAC panels installed on top of a structural frame with Boral Firestop Plasterboard installed underneath (For Fire Rated Applications). Refer A2.

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

BCA 2019 (Amdt. 1)

	Volume One	Volume Two
Performance Requirement(s):	BP1.1 Structural reliability FP5.1 Sound transmission through floors – Floors. Can be used in conjunction with other building elements to provide insulation against the transmission of airborne and impact generated sound sufficient to prevent illness or loss of amenity to the occupants. Refer A3. FP5.4 Sound transmission through floors in residential care buildings – Floors. Can be used in conjunction with other building elements to provide insulation against the transmission of airborne and impact generated sound sufficient to prevent illness or loss of amenity to the occupants. Refer A3.	P2.1.1 Structural stability and resistance
Deemed-to-Satisfy Provision(s):	C1.1(b) Fire Resistance and Stability – FRL varies, dependant of the configuration of the wall. Refer <i>Limitation and Condition 2</i> . C1.9 Non-combustible building elements – Subject to <i>Limitation and Condition 5</i> . C1.10 Fire hazard properties – Subject to <i>Limitation and Condition 6</i> . J1.6 Energy Efficiency – Floors. Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3.	3.7.3.5 Protection from the Spread of Fire - FRL varies, dependant of the configuration of the wall. Refer <i>Limitation and Condition 2</i> . 3.12.1.5 Energy Efficiency – Floors. Must be used in conjunction with other building elements to achieve a Total R Value. Refer A3.
State or territory variation(s):	Not Applicable	Part 3.12 (NSW, NT, SA, Qld, Tas, ACT)

Richard Donarski - CMI

Don Grehan – Unrestricted Building Certifier

Date of issue: 03/03/2023

Date of expiry: 09/03/2025



Certificate of Conformity

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. Construction shall be in strict accordance with the [Nasahi Flooring System, Design and Installation Guide, 50mm, 62mm, 75mm, Edition: Aug 2021](#), relevant BCA requirements, and any specific requirements of the local building authority.
2. Compliance with FRL is dependent on the construction arrangement being as specified in A3. Any deviation from the construction arrangement does not form part of this Certificate of Conformity.
3. It is the responsibility of the architectural designer and engineering parties to ensure that the details in the [Nasahi Flooring System, Design and Installation Guide, 50mm, 62mm, 75mm, Edition: Aug 2021](#) are appropriate for the intended application with respect to R values, FRLs, joist spacings and Acoustic values as described A3 of the Certificate of Conformity.
4. Acoustic Insulation material specified for use in Nasahi Flooring System must conform to AS/NZS 4859.1:2018.
5. Compliance with C1.9 is limited to the tested Nasahi AAC panel only refer A3.
6. In relation to C1.10 - Insulation materials installed must conform with the requirements of AS/NZS 1530.3:1999, with a SoF Index not greater than 9, and an SDI not greater than 8 if the SoF is more than 5.
7. Penetrations through the floor required to achieve; fire performance shall have a solution supported by a fire engineer; and acoustic performance shall be acoustically sealed.
8. The structural support members are to be designed and engineered separately as per project requirements as this is outside of the scope of certification.
9. Where multiple penetrations through the same panel are required, they must be located in-line, parallel to the long edge of the panel. Where multiple penetrations in a panel cause a reduction in panel strength additional structural support joists may be required.
10. For penetrations greater than 80mm in diameter refer to Detail 5.2 on page 40 of the Nasahi Flooring System, Design and Installation Guide, 50mm, 62mm, 75mm, August 2021. A 10mm gap must be created around the service to allow for differential movement between the panel and the service. Any gaps must be filled with backing rod and an appropriate flexible sealant.
11. 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:

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

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.



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 Flooring System incorporates:

- 50mm, 62mm, or 75mm thickness Nasahi Panel
- Commonly with; carpet/vinyl & underlay (with min. 3.2mm Masonite panel for 50mm or 62mm panel); or floorboards with underlay; or timber flooring with ply sheeting or timber battens; or tiles with adhesive, underlay, screed.
- Bugle Batten Head Type 17, 14-10 Class 3 screws for timber framing, or Hex head self-drilling 14-10 class 3 screws for steel framing. Class 4 screws required for severe marine environment >100m from breaking surf, Stainless steel Class 4 screws for severe marine environment <100m from breaking surf.
- Construction adhesive between top of joists and panels.
- Nasahi Panel adhesive to joints, for minor patching and to screw heads.
- Anti-corrosion touch-up paint.
- Min. 3.2mm Masonite panel over 50mm or 62mm panels when using carpet or vinyl floor coverings.
- Minimum 45mm joist width, subject to detailing requirements.
- Specified ceiling systems where fire, acoustic performance is required for intermediate floors

Panel Thickness	50mm	62mm	75mm
Design Dead Load (kN/m ²)	0.36	0.45	0.53
Panel weight (600x220mm)(590kg/m ²)	39kg	48kg	58kg

A3 Product specification

Maximum joist spacing for floor loads

Panel Thickness	50mm @ 2.0kPa	62mm @ 2.0kPa	75mm @ 2.0kPa	75mm @ 3.0kPa
Maximum Spacing	450mm	450mm	600mm	450mm

Note: For applications which require an FRL the maximum spacing between joists must be 450mm.

Design load Capacities

Panel Thickness	Maximum Imposed Concentrated Action	UDL's
50mm	1.8kN	1.5kPa
62mm	1.8kN	
75mm	2.5kN	

Nasahi® Floor System Fire Resistance Levels

Nasahi® Flooring System	Construction Arrangement	FRL
FXX-T250-03	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 glass Wool Ceiling Batt 13mm USG Boral fire rated plasterboard providing minimum 30min FRL	30/30/30 Fire protective covering
FXX-T250-04	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 glass Wool Ceiling Batt 16mm USG Boral fire rated plasterboard providing minimum 30min FRL	30/30/30 Resistance to the incipient spread of fire 30 mins
FXX-T250-05	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 glass Wool Ceiling Batt Two layers of 13mm USG Boral fire rated plasterboard providing minimum 60min combined FRL	60/60/60 Resistance to the incipient spread of fire 30 mins
FXX-T250-06	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 glass Wool Ceiling Batt One layer of 13mm USG Boral fire rated plasterboard and one layer of 16mm USG Boral fire rated plasterboard, providing minimum 60min combined FRL	60/60/60 Resistance to the incipient spread of fire 30 mins
FXX-T250-07	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 glass Wool Ceiling Batt Two layers of 16mm USG Boral fire rated plasterboard, providing minimum 90min combined FRL	90/90/90 Resistance to the incipient spread of fire 60 mins
FXX-T250-08	Nasahi® 50, 62 or 75mm Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt Three Layers of 16mm USG Boral fire rated plasterboard, providing minimum 120min combined FRL	120/120/120 Resistance to the incipient spread of fire 60 mins

Notes:

The USG Boral fire rated plasterboard to be fixed and installed as per manufacturers specifications and installation requirements.

Source: TC Fire Engineering, Floor Systems – Performance Solution Report No. TCFE0016 V3 dated 25/02/2022.

Nasahi® Floor System Acoustic Performance Levels

NASAHI® SYSTEM	SYSTEM DETAILS	PANEL THICKNESS	IMPACT: Ln, w (CI)		
			AIRBORNE R _w (Ctr)	TILES & 5MM THICK RUBBER UNDERLAY	CARPET & FOAM UNDERLAY
FXX-T250-01	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber joist No insulation 10mm standard plasterboard 	50mm	48 (-6)	73 (-7)	46 (-5)
		62mm	48 (-5)	73 (-6)	46 (-5)
		75mm	49 (-5)	65 (-2)	43 (-3)
FXX-T300-02	<ul style="list-style-type: none"> Nasahi® Panel 300mm deep timber joist No insulation 10mm standard plasterboard 	50mm	48 (-5)	73 (-6)	46 (-5)
		62mm	49 (-5)	73 (-5)	46 (-5)
		75mm	49 (-5)	66 (-1)	42 (-2)
FXX-T250-03	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt 13mm USG Boral fire rated plasterboard 	50mm	61 (-4)	60 (-6)	36 (-4)
		62mm	62 (-5)	59 (-5)	36 (-4)
		75mm	62 (-4)	52 (-2)	31 (-2)
FXX-T250-04	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt 16mm USG Boral fire rated plasterboard 	50mm	61 (-4)	59 (-5)	36 (-4)
		62mm	61 (-3)	59 (-5)	36 (-4)
		75mm	62 (-4)	52 (-2)	31 (-3)
FXX-T250-05	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt Two layers of 13mm USG Boral fire rated plasterboard 	50mm	63 (-3)	59 (-7)	35 (-3)
		62mm	63 (-3)	58 (-6)	35 (-3)
		75mm	64 (-4)	50 (-1)	30 (-3)
FXX-T250-06	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt One layer of 13mm USG Boral fire rated plasterboard One layer of 16mm USG Boral fire rated plasterboard 	50mm	63 (-4)	59 (-7)	35 (-3)
		62mm	63 (-4)	58 (-6)	35 (-3)
		75mm	63 (-3)	50 (-1)	30 (-3)
FXX-T250-07	<ul style="list-style-type: none"> Nasahi® Panel 250mm deep timber or steel joist with resilient mounts and furring channels. 450mm maximum floor joist spacing R2.5 Glass Wool Ceiling Batt Two layers of 16mm USG Boral fire rated plasterboard 	50mm	62 (-3)	59 (-6)	35 (-4)
		62mm	62 (-3)	59 (-6)	35 (-4)
		75mm	62 (-3)	51 (-2)	31 (-4)

Source: Renzo Tonin & Associates, Report No. TH736-01F02 Acoustic Opinion R8, Dated 16th April 2020.

Energy Efficiency

	Total R-value m ² K/W, (U-value W/m ² K)					
	50mm		62mm		75mm	
	Winter	Summer	Winter	Summer	Winter	Summer
Carpet and Underlay Nasahi® Panel, Timber joists @ 450mm c/c, R1.5 Glasswool Batt, Non-reflective Sarking, Unventilated subfloor, Ground	3.53 (0.28)	3.24 (0.31)	3.62 (0.28)	3.34 (0.30)	3.72 (0.27)	3.44 (0.29)

Source: James M Fricker Report No. i449a, Thermal Insulation Evaluation Report, dated 21/04/2021.

C1.9 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/m³. The material is NOT deemed combustible - Limited to the panel only.

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

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 Flooring System, Design and Installation Guide, 50mm, 62mm, 75mm, August 2021](#)

A6 Other relevant technical data

No other relevant technical data.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Acoustic Provisions A5.2(1)(e). Reports from a professional engineer.
2. Fire Safety Provisions A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
3. Structural Provisions A5.2(1)(e). Reports from a professional engineer.
4. Thermal Provisions A5.2(1)(e). Reports from a professional engineer.

B2 Reports

1. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; EWFA Report No. 36502100.2; Fire testing to AS 1530.4-2005 – Determination of FRL of a wall system; Dated 28/09/2015.
2. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; EWFA Report No. 365312-00.1, Testing in accordance with AS1530.1-1994: Dated 25/08/2015.
3. Acronem Consulting Australia Pty Ltd; Report No. ACA 210830; NASAHI Flooring System NCC 2019 Amdt. 1; Dated 02/03/2022.
4. James M Fricker Pty Ltd; Report No. i449a; Thermal Insulation Evaluation Report; Dated 21/04/2021.
5. TC Fire Engineering; Reference No. TCFE0016; Floor Systems – Performance Solution Report V3; Dated 25/02/2022.
6. Renzo Tonin & Associates, Report No. TH736-01F02 Acoustic Opinion R8, Dated 16th April 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.