



Certificate of Conformity

Certificate number: CM40335

Certification Body:


ABN: 80 111 217 568
JAS-ANZ Accreditation No.
Z4450210AK
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Certificate Holder:


Askin Pty Ltd
ABN: 13 156 186 033
Level 3, Suite 3.01, 150
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Melbourne VIC 3205
<https://www.askin.net.au>

THIS IS TO CERTIFY THAT

Volcore Roofing System

Type and/or use of product:

The Volcore Roofing system is made from insulated composite panels intended for use in external roofing configurations.

Description of product:

The Volcore Roofing system include 'Volcore Metric' and/or 'Volcore Metric Acoustic' panels. Volcore Metric & Volcore Metric Acoustic panels comprise of mineral fibre cores adhered between two steel facers with an external face of 0.5/0.6mm and internal face of 0.6mm G300 Colorbond. Both products are adhered between steel and core with a 2-part polyurethane adhesive. Refer A2 for further details.

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(b)(iii) Structural reliability	Not Applicable
Deemed-to-Satisfy Provision(s):	C1.9(e)(vii) Non-combustible building materials	Not Applicable
	C1.10(a)(ii) Fire hazard properties – Subject to <i>limitation and condition 6</i> .	
	F1.5(d) Damp & Weatherproofing - Roof coverings	
	G5.2 Construction in bushfire prone areas – Must be used in conjunction with other building elements for use in area up to BAL – 40. Subject to <i>limitation and condition 7</i>	
	J1.3 Energy Efficiency – Roof and Ceiling Construction. Must be used in conjunction with other building elements to achieve a Total R Value.	
State or territory variation(s):	G5.2 NSW	Not Applicable


Richard Donarski - CMI


Don Grehan – Unrestricted Building Certifier

Date of issue: 10/11/2022

Date of expiry: 10/11/2025



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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 installation requirements detailed in Section A5 of this Certificate of Conformity.
2. The roof panels will be limited by wind load shown in the manufacturer's specifications on the span certified for the product type, thickness, core density and fixing configuration as per the product's certified span tables. Refer A3 below.
3. Any penetrations made into the certified products will void all nominated structural performance. The adequacy of the size, location and spacing of any penetrations through the roof panels including penetrations for flues, chimneys or exhaust of hot products of combustion are outside the scope of this certificate and require site-specific solutions.
4. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
5. It is the responsibility of the building designer to ensure fitness for purpose including, but not limited to, consideration for the corrosion resistance level of the product and the proximity to breaking surf.
6. The Group number has been determined in accordance with testing conducted to AS ISO 9705 and assessment against AS 5637.1: 2015, refer A3.
7. 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.
8. 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:

Classes 2,3,4,5,6,7,8 & 9

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, 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

Volcore Roofing range of panels consist of two types of panels, the Volcore Metric panel and the Volcore Metric Acoustic panel.

- The Volcore Metric panel has an external face of 0.5/0.6mm and internal face of 0.6mm Colorbond G300 solid steel facers with a mineral wool fibre core material adhered to the steel facers with a 2-part polyurethane adhesive and come in the following thicknesses:

Panel	Thickness	Core Density
Volcore Metric panel	75mm; 100mm; 120mm; 150mm, 175mm & 200mm	110 kg/m ³ +/- 10%

- The Volcore Metric Acoustic panel has a solid external face of 0.5/0.6mm and 0.6mm perforated Colorbond G300 steel facers with a mineral wool fibre core material adhered to the steel facers with a 2-part polyurethane adhesive and come in the following thicknesses:

Panel	Thickness	Core Density
Volcore Metric Acoustic panel	100mm, 120mm, 150mm, 175mm, 200mm	110 kg/m ³ +/- 10%

A3 Product specification

Structure & Weatherproofing In order to maintain compliance with structure, the Span Tables located in the following Product Specification Sheets must be referred to for which have been certified by a licensed Professional Engineer in accordance with the relevant Australian standards (AS 1170.0, AS 4040, AS 1562) for application in Australian wind regions A & B to AS 1170.2 for Vol One, from static load testing undertaken in accordance with AS 4040.

Document Name	Version
Product Specification Sheet – Roof Systems (Volcore Metric)	October 2022
Product Specification Sheet – Roof Systems (Volcore Metric Acoustic)	October 2022

Penetrations

In order to maintain compliance with structure, the adequacy of the size, location and spacing of any penetrations through the roof panels is outside the scope of this Certificate of Conformity and must be confirmed by a structural engineer.

Non-Combustibility Each lamina of the Volcore Metric & Volcore Metric Acoustic panels has been tested in accordance with AS 1530.1-1994 and is **NOT** deemed combustible.

Source: CSIRO; NATA Accreditation no. 165; Report FNC12842; Testing of Steel Sheeting in accordance with AS 1530.1:1994; Dated 17/02/2022 & Warringtonfire Australia Pty Ltd; Report RTF190172, R1.0; Combustibility Test for Materials in Accordance with AS 1530.1-1994; dated 10/09/2019.

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Fire Indices

AS/NZS 1530.3-1999 Methods for Fire Tests on Building Materials, Components and Structures Part 3: Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release Indices for the Volcore Metric & Volcore Metric Acoustic panels.

Volcore Metric

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Index	1	Range 0-10

Source: AWTA Product Testing, Report 16-002279 dated 12/04/2019

Volcore Metric Acoustic

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Index	2	Range 0-10

Source: Ignis Labs Report No. GNL-6237-01-01 dated 10/10/2022.

Material Group Numbers

The Group Number has been determined in accordance with testing conducted to ISO 9705:2003 (R2016) and AS 5637.1:2015.

Group Number	1
Smoke Growth Rate Index (SMOGR_{RC})	< 100 m ² /s ²

Source: Warringtonfire Australia Pty Ltd; Report FAS200369, R1.0 dated 16/11/2020.

Bushfire Attack Level (BAL)

Volcore Metric panel & Volcore Metric Acoustic panel must be used in conjunction with other building elements to comply with Bushfire Attack Level up to BAL – 40. Compliance has been determined based on the non-combustibility testing and requirements of AS 3959:2018 where sheet roofs are to be non-combustible.

Source: Standards Australia; AS 3959:2018 Construction of buildings in bushfire prone areas dated 14/11/2018.

Thermal

The Declared Material R-values of ASKIN Volcore mineral wool insulated core panel have been determined in accordance with AS/NZS 4859.1:2018 and based off test reports for the 50mm & 160mm panel thicknesses.

Declared Material R-Value [(m ² .K)/W]							
Volcore	Thickness (mm)	75	100	120	150	175	180
	0°C	2.00	2.70	3.25	4.05	4.75	4.85
Mean Temp(°C)	15°C	1.95	2.60	3.10	3.90	4.55	4.65
	23°C	1.85	2.50	3.00	3.75	4.40	4.50

Calculations of Total R-value of ASKIN Volcore panels for Roof construction performed in accordance with AS/NZS 4859.1:2018 are provided below. In all cases the construction is assumed to consist of the panel.

Total R-Value [(m ² .K)/W] (Summer/Winter) & System U-Value [W/(m ² .K)] (Summer/Winter)							
Volcore	Thickness (mm)	75	100	120	150	175	180
	R _(Sum.)	2.0	2.7	3.2	3.9	4.5	4.6
External Roof	U _(Sum.)	0.49	0.38	0.32	0.26	0.22	0.22
	R _(Wint.)	2.1	2.7	3.4	4.0	4.7	4.8
	U _(Wint.)	0.48	0.36	0.31	0.25	0.21	0.21

Source: Acronem Consulting Australia Pty Ltd letter dated 13/09/2021.



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A4 Manufacturer and manufacturing plant(s)

This field is optional. Contact Certificate Holder for details.

A5 Installation requirements

Installation must be in accordance with the following Technical Drawings manuals as appropriate:

- [ASKIN Roofing - Metric & Metric Acoustic Standard Details - 26-09-2022.](#)

A6 Other relevant technical data

Acoustic Properties	The following acoustic values have been tested in accordance with AS 1191-2002 and assessed against AS/NZS ISO 717.1: 2004 with the following results:		
	Panel Thickness (mm)	R _w	R _w + C _{tr}
	Askin Volcore panel 75mm	28	25
	Askin Volcore panel 100mm	29	
	Askin Volcore panel FRL 100mm		
	Askin Volcore Acoustic 120mm	31	26
	Askin Volcore panel 120mm	30	
	Askin Volcore panel 150mm		
	Askin Volcore panel FRL 150mm	31	
	Askin Volcore Acoustic 150mm†		
	Askin Volcore Metric Panel 200mm*	33	33 (-1, -3)

†Values have been determined based on a panel comprising the following;

- with a 0.6mm thick solid steel to one side and a 0.4mm thick perforated steel to the other side,
- 150mm thick, 110 kg/m³ mineral wool adhered to steel outer casing (top and bottom)

*Values have been determined based on a panel comprising the following;

- with a 0.6mm thick steel to one side and a 0.5mm thick steel to the other side,
- 200mm thick, 110 kg/m³ mineral wool adhered to steel outer casing (top and bottom)

Source:

75mm Panel - Acoustic Laboratories Australia Pty Ltd, Report No. ALA 09-080-2 dated 26/03/2009,
 120mm Panel - Acoustic Laboratories Australia Pty Ltd, Report No. ALA 20-094-2 dated 23/10/2020,
 100mm Panel – SLR Consulting Australia Pty Ltd, Opinion Report No. 640.11482 ASK2 20170628 dated 28/06/2017,
 120mm Panel - SLR Consulting Australia Pty Ltd, Opinion Report No. 640.11482 ASK5 20170629 dated 29/06/2017,
 150mm Panel - SLR Consulting Australia Pty Ltd, Opinion Report No. 640.11482 ASK6 20170629 dated 29/06/2017,
 150mm Panel - SLR Consulting Australia Pty Ltd, Opinion Report No. 640.11482 ASK8 20170629 dated 1/02/2019,
 200mm Panel - SLR Consulting Australia Pty Ltd, Opinion Report No. 640.11482 ASK17 20220812 dated 12/08/2022.

Rainfall Noise Prediction

Professional Opinion of estimations of the Rain Impact Noise Rating of 150mm and 200mm thick Askin roof panels with 0.6mm external steel skin and 0.4mm internal steel skin.

	150mm thick panel	200mm thick panel
A-weighted Sound Intensity Level, L_{1A}, dBA	49	47

Contact Certificate Holder for further details. **Source:** SLR Consulting Australia Pty Ltd, Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 150mm thick panel dated 01/02/2019.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

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

B2 Reports

1. Ian Bennie & Associates Pty Ltd; NATA Accreditation No. 2371; IBA Test Report No. 2022-010 ASKIN_AS4040.2_VolcoreMetricAcoustic_01; Dated 04/08/2022.
2. Ian Bennie & Associates Pty Ltd; NATA Accreditation No. 2371; IBA Test Report No. 2022-010 ASKIN_AS4040.2_VolcoreMetric_02(Amended); Dated 08/08/2022.
3. Acronem Consulting Australia Pty Ltd; Report No. ACA-220210; NCC 2019 Weatherproofing Compliance for Volcore Metric Roofing Panels; Dated 22/08/2022.
4. Acronem Consulting Australia Pty Ltd; Report No. ACA-220826; NCC 2019 Weatherproofing Compliance for Volcore Metric Acoustic Roofing Panels Dated 30/08/2022.
5. Acronem Consulting Australia Pty Ltd; Thermal performance and ASKIN Volcore Panels applications; Dated 13/09/2021.
6. AWTA Product Testing; Nata Accreditation No. 1356; Report No. 16-002279; Testing in accordance with AS/NZS 1530.3-1999; Dated 10/05/2016.
7. AWTA Product Testing; Nata Accreditation No. 1356; Report No. 21-005381; Testing in accordance with AS/NZS 1530.3-1999; Dated 27/10/2021.
8. AWTA Product Testing; Nata Accreditation No. 1356; Report No. 22-003267; Testing in accordance with AS/NZS 1530.3:1999; Dated 09/09/2022.
9. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; Report FAS200369 R1.0, Fire Hazard properties of Volcore Panels in accordance with AS 5637.1:2015; Dated 16/11/2020.
10. CSIRO; NATA Accreditation No. 165; Report No. FNC12842; Combustibility Test for Materials in Accordance with AS 1530.1-1994; Dated 17/02/2022.
11. Ignis Labs Pty Ltd; NATA Accreditation No. 20534; Report No. IGNL-6237-01-01 I01 R01; ASKIN Product Evaluation - Volcore Panel 50 mm – 200 mm; Dated 10/10/2022.
12. Askin Engineering; Report Ref. Volcore Metric – REV3; CodeMark span table analysis; Dated 15/08/2022.
13. Askin Engineering; Report Ref. Volcore Metric Acoustic – REV2; CodeMark span table analysis; Dated 15/08/2022.
14. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; Report RTF190172, R1.0; Combustibility Test for Materials in Accordance with AS 1530.1-1994; Dated 10/09/2019.
15. Warringtonfire Australia Pty Ltd; Nata Accreditation No. 3277; Report No. RTF200329 Revision R1.0 Testing in accordance with AS ISO 9705:2003 (R2016) and AS 5637.1:2015; Dated 15/10/2020.
16. Acoustic Laboratories Australia Pty Ltd; Report No. ALA 09-080-2; Determination of the Airborne Sound Insulation of 75mm thick panel; Dated 26/03/2009.
17. Acoustic Laboratories Australia Pty Ltd; Report No. ALA 20-094-2; Determination of the Airborne Sound Insulation of 120mm Volcore panel with perforated steel face to one side; Dated 20/10/2020.
18. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK2 20170628; Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 100mm thick panel; Dated 28/06/2017.
19. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK5 20170629; Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 120mm thick panel; Dated 29/06/2017.
20. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK6 20170629; Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 150mm thick panel; Dated 29/06/2017.
21. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK8 20190201; Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 150mm thick perforated panel; Dated 01/02/2019.
22. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK17 20220812; Acoustical Opinion of Airborne Sound Insulation (R_w Rating) 200mm thick perforated panel; Dated 12/08/2022.
23. SLR Consulting Australia Pty Ltd; Opinion Report No. 640.11482 ASK9 20190318; Estimations of Rain Impact Noise Rating of 150mm and 200mm thick Askin roof panels; Dated 18/03/2019.

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