

Certificate of Conformity

Certification Body:



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Certificate Holder:



James Hardie Australia
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Certificate number: CM40225 Rev1

THIS IS TO CERTIFY THAT

Linea™ Weatherboard

Type and/or use of product:

External cladding for residential and commercial facades.

Description of product:

Lightweight fibre-reinforced cement sheeting wall system. Refer A2 below for further information.

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

BCA 2019 (Amdt. 1)

	Volume One	Volume Two
Performance Requirement(s):	<p>BP1.1(b)(i) Structural reliability – Permanent and wind actions & (iii)</p> <p>FP1.4 Weatherproofing - External walls subject to <i>Limitation and Condition No. 2.</i></p>	<p>P2.1.1(b)(i) Structural reliability – Permanent and wind actions & (iii)</p> <p>P2.2.2 Weatherproofing – External walls subject to <i>Limitation and Condition No. 2.</i></p>
Deemed-to-Satisfy Provision(s):	<p>C1.9(e)(iv) Non-combustible materials</p> <p>G5.2 Construction in bushfire prone areas (BAL Low-40)</p>	<p>3.5.4.3(a) Wall cladding boards</p> <p>3.5.4.4(a)(i) Sheet wall cladding</p> <p>3.5.4.5(a) Eaves and soffit linings</p> <p>3.10.5.0 Construction in bushfire prone areas (BAL Low-40)</p> <p>3.10.5.0 NSW</p>
State or territory variation(s):	G5.2 NSW	3.10.5.0 NSW

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

Limitations and conditions:

- Linea™ Weatherboard must be installed in accordance with the [Linea™ Weatherboard Installation Guide April 2023](#).
- To satisfy FP1.4 & P2.2.2 via verification requires the site specific evaluation of the relevant design against FV1.1 and/or V2.2.1 to the satisfaction of the Appropriate Authority as defined by the NCC:
 - (a)(i) has a risk score of 20 or less, when the sum of all risk factor scores are determined in accordance with Table FV1.1/V2.2.1a; and
 - (a)(ii) is not subjected to an ultimate limit state wind pressure of more than 2.5kPa; and

Building classification/s:

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


Richard Donarski - CMI



Don Grehan – Unrestricted Building Certifier

Date of issue: 11/04/2023

Date of expiry: 20/08/2024



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- (a)(iii) includes only windows that comply with AS 2047.
Compliance with Weatherproofing is limited to the tested specimen, any deviations from this specimen, is subject to site specific design and approval by the regulatory authority.
3. The project designer or specifier must ensure the product is appropriate for the intended application and that additional detailing is performed for specific designs or applications that fall outside the scope of the manual and/or certification. It is the responsibility of the builder to ensure the product meets aesthetic requirements prior to installation.
 4. No assessment has been undertaken on the product for Part F6 of Vol 1 or Part 3.8.7 of Vol 2 of the 2019 BCA for Condensation management. A pliable building membrane complying with AS/NZS 4200.1:2017 must be installed in accordance with AS/NZS 4200.2:2017 to separate the wall cladding panels from any water sensitive materials.
 5. Compliance with BP1.1(b)(iii) & P2.1.1(b)(iii) excludes resistance to impact loading from windborne debris.
 6. Linea™ Weatherboard must be fixed to a structurally adequate external wall frame in accordance with the appropriate tables in section A5.
 7. The structural certification is limited to the cladding only and does not include the sub-structure. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
 8. In order to maintain compliance with BAL – 40, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959-2018.
 9. 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, 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

Linea™ Weatherboard consists of Portland cement, ground sand, cellulose fibre, water and proprietary additives.

Product	Length (mm)	Width (mm)	Thickness (mm)	End details	Mass kg/m ²	Effective Width Cover (mm)	Effective Coverage per Plank (m ²)	Product Code
150mm Linea™ Weatherboard	4200*	150	16	T & G	23.2	120	0.50	403930
180mm Linea™ Weatherboard	4200*	180	16	T & G	22.7	150	0.63	403912

Notes:

*Length is 4200mm plus 5mm for the tongue and groove (T & G) making the length 4205mm overall.

1. All dimensions and masses provided are approximate only and subject to manufacturing tolerances.
2. Masses are based on equilibrium moisture content of product.
3. Refer to [Linea™ Weatherboard Installation Guide April 2023](#) for details of the effective cover and lapped thickness of the cladding.

Note: All dimensions and masses are approximate and subject to manufacturing tolerances.

Components:

Hardie™ Joint Sealant – General purpose polyurethane exterior grade sealant.

Hardie™ Weather Barrier – Water barrier and vapour permeable membrane compliant to AS/NZS 4200.1:2017.

RAB™ Board – Airtight, weatherproof, vapour permeable and non-combustible rigid 6mm fibre-cement sheeting compliant to AS/NZS 4200.1:2017 & AS/NZS 2908.2:2000.

Hardie™ Edge Trim – Powder coated aluminium architectural slab edge solution.

Linea™ PVC Starter Strip – A perforated PVC starter strip used to set out the bottom edge of Linea™ Weatherboard at the correct angle.

Linea™ Aluminium Universal Window Adaptor – A ready to paint extrusion to be used adjacent to windows to finish the edge of Linea™ Weatherboard.

Hardie™ Corner Flashing – Colorbond® steel used behind cladding at internal and external corners.

Linea™ PVC Box Corner Z Flashing – A PVC flashing for use with Linea™ Weatherboard in conjunction with Hardie™ Axent™ Trim to form external corners.

Hardie™ Axent™ Trim – Material composite trim used for box corners and around windows and doors.

Hardie™ Aluminium Internal Corner Mould – A ready to paint extrusion to be used with Linea™ Weatherboard to create internal corners.

Linea™ Aluminium External Slimline Boxed Corner – A ready to paint extrusion to be used with Linea™ Weatherboard to create external boxed corners.

Linea™ Aluminium Corner Soaker – A ready to paint aluminium external corner soaker for use with 150mm & 180mm wide Linea™ Weatherboard.

Battens – Fibre cement batten used to fix external cladding to steel or timber frame.

Hardie™ Break Thermal Strip – NCC requirement used behind external cladding when fixed directly to steel frame.

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A3 Product specification

Material The basic composition is Portland cement, ground sand, cellulose fibre and water. James Hardie building products are manufactured to Australian/New Zealand Standard AS/NZS 2908.2:2000 'Cellulose-cement products-Flat sheet'.

Linea™ Weatherboard is classified Type A, Category 3 in accordance with AS/NZS 2908.2:2000.

Resistance to fire Linea™ Weatherboard & Fixing System is suitable where non-combustible materials are required in accordance with C1.9 of the Building Code of Australia.

Physical Property	Saturated Condition	Equilibrium Condition 23°C – 50% RH	Standard
Minimum Bending Strength	>7.0 Mpa		AS/NZS 2908.2:2000
Category	3		
Type	A		
Average Density in kg/m ³ (Oven Dry)	1285		AS/NZS 2908.2:2000
Watertightness	Watertightness Passes AS/NZS 2908.2:2000	Passes	AS/NZS 2908.2:2000
Dimensional Conformance		Passes	AS/NZS 2908.2:2000
Heat-Rain Durability			
Warm Water Resistance		Passes	AS/NZS 2908.2:2000
Freeze-Thaw Resistance			
Combustibility	Suitable where non-combustible materials are required in accordance with C1.9(e)(iv) of the BCA		Deemed to comply with BCA

Weatherproofing Linea™ Weatherboard – Direct Fix

Testing was conducted in accordance with the Verification Method FV1 (Current against 2019 Verification Method FV1.1) 'Weatherproofing' (Volume 1) and V2.2.1 'Weatherproofing' (Volume 2) test procedure as contained within National Construction Code of Australia.

Results

Test Type	Criteria	Result
Structural Test	100% Serviceability Limit State Pressure of 1.515kPa for 1 minute in both positive and negative directions.	Pass
Static Water Penetration	30% Serviceability Limit State Pressure 455Pa for 15 minutes Pass Criteria: No presence of water on the inside surface of the façade.	Pass
Cyclic Water Penetration	Cyclic @ 15-30% SLS – 227 to 455 Pa Duration: 5 minutes Cyclic @ 20-40% SLS – 303 to 606 Pa Duration: 5 minutes Cyclic @ 30-60% SLS – 455 to 910 Pa Duration: 5 minutes Pass Criteria: No presence of water on the inside surface of the facade.	Pass

Source: Test Report No. TS015-18, Weathertightness – Linea™ Fibre Cement Cladding Direct Fix dated 16 July 2018.

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Weatherproofing Linea™ Weatherboard – Cavity Fixed

Testing was conducted in accordance with the Verification Method E2/VM1 which has been confirmed to be equivalent to the NCC FV1.1/V2.2.1 test methodology for cavity wall systems test procedure as contained within National Construction Code of Australia and subsequently assessed for validation against the certified product.

Results

Test Type	Criteria	Result
Structural Test	Serviceability Limit State Pressure of 1.51 kPa for 1 minute in both positive and negative directions	Pass
Series 1	455 Pa for 15 minutes	Pass
Static Water Penetration	Pass Criteria: No water on building wrap.	Pass
Series 1	Cyclic @ 455 to 910 Pa for 5 minutes	Pass
Cyclic Water Penetration	Pass Criteria: No water on building wrap.	Pass
Series 2	455 Pa for 15 minutes	Pass
Water Management Test	Pass Criteria: No water on building wrap.	Pass
Series 2	Cyclic @ 455 to 910 Pa for 5 minutes	Pass
Water Management Test	Pass Criteria: No water on building wrap	Pass
Series 3	Static pressure of 50 Pa for 15 minutes	Pass
“Wetwall Test”	Pass Criteria: No water on building wrap.	Pass

Source: Test Report No. TS022-13, Weathertightness - NZ Axon on CLD Battens; dated 12 November 2013 and Equivalence report from James Hardie Research Pty Ltd dated 21/10/2022.

A4 Manufacturer and manufacturing plant(s)

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

A5 Installation requirements

The Linea™ Weatherboard must be installed in accordance with the [Linea™ Weatherboard Installation Guide April 2023](#).

Failure to install, finish or maintain this product in accordance with applicable building codes, regulations, standards and James Hardie’s written application instructions may lead to personal injury, affect system performance, violate local building codes, and void James Hardie’s product warranty.

A suitable weather barrier must be installed behind Linea™ Weatherboard in accordance with the relevant requirements of the BCA and the AS/NZS 4200.2:2017 Pliable building membranes and underlays – Installation. James Hardie recommends HardieWrap™ Weather Barrier – refer to the building designer, certifier, or other relevant expert, for suitability.

Refer to the [Linea™ Weatherboard Installation Guide April 2023](#) for Stud Spacings and fixing requirements.

A6 Other relevant technical data

Thermal	The Linea™ Weatherboard panels will contribute to the overall thermal performance of the building; however, it is the responsibility of the building designer to ensure the minimum thermal requirements for the building envelope is achieved.
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Resistance to fire

Testing has been conducted by CSIRO on the James Hardie Cladding materials in accordance with AS/NZS 3837:1998 and are classified as conforming to Group 1 material.
(Average Specific Extinction Area 9.3m²/Kg).

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

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

B2 Reports

1. David Beneke Consulting; Report 2019-12-LO-14; Structural compliance of James Hardie Fibre Cement Cladding Systems; Dated 27/05/2020.
2. Cardno (NSW/ACT) Pty Ltd; Report 605726-LO-13-3; Certification of Linea™ fastener and span tables; Dated 30/09/2016.
3. Ignis Solutions Pty Ltd; Evaluation No. IGNS-6090-01 Issue 01 Revision 00[2018]; Compliance with AS 3959-2009 BAL Low-40; Dated 31/03/2018.
4. James Hardie Research Pty Ltd; NATA Accreditation No. 14220; Test Report Number TS033-12; Testing in accordance with AS/NZS 2908.2:2000 Products Part 2: Flat Sheets; Dated 10/02/2021.
5. James Hardie; NATA Accreditation No. 14220; Report No. TS015-18; Weathertightness in accordance with FV1/V2.2.1; Dated 16/07/2018.
6. James Hardie Research Pty Ltd; NATA Accreditation No. 14220; Test Report Number TS033-13; Weathertightness (E2-VM1); Dated 08/01/2014.
7. James Hardie Research Pty Ltd; NATA Accreditation No. 14220; Equivalence of NZ E2/VM1 and NCC FV1.1/V2.2.1 test methodologies for Cavity Wall Systems; Dated 21/10/2022.

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