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Certificate no: CMNZ30109

Version: C

Original issue date: 20/08/2019 Version date: 23/10/2024 Renewal Date: 01/09/2025

1. Certificate Holder Details



James Hardie New Zealand Limited

Trading as James Hardie 1 O'Rorke Road, Penrose , Auckland 1061 TechnicalTeam@jameshardie.co.nz Tel: 0800 808 868, www.jameshardie.co.nz

2. Product Certification Body

Global-Mark Pty Ltd

Trading as Global-Mark 57 Willis Street, Wellington, 6011 customer.service@global-mark.co.nz +64 9 889 0622 www.global-mark.co.nz

Complaints: The complaints process for this certificate can be found here:

www.global-mark.co.nz/complaints

Global-Mark Managing Director.



Herve Michoux



Product Certificate

Stria[™] Cladding by James Hardie

3. Description of Building Method or Product

Stria[™] Cladding is a cavity-based fibre cement panel wall cladding system.

StriaTM Cladding consists of StriaTM Cladding Panel, which is a 14mm profile fibre cement panel, fixed horizontally or vertically over battens to form a nominal 20 mm cavity. Proprietary ventilated timber battens are used in vertical applications. The cladding is finished with a latex paint system.

The cladding system incorporates a primary and secondary means of weather resistance (first and second lines of defence) against water penetration by separating the cladding from the external wall framing with a nominal 20 mm cavity. The cavity allows for any occasional ingress of water that may get past the external skin to drain to the exterior of the building, and any remaining moisture to dry by evaporation.

4. Intended use of Building Method or Product

The system is designed to be used as part of an external cladding system on timber framed building

5. New Zealand Building Code Provisions

The System if designed, used, installed and maintained in accordance with the conditions of this Certificate will comply with or contribute to compliance with the following performance provisions of the NZ Building Code:

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4, for the relevant physical conditions of

B1.3.3 (a), (f), (h), (j) & (q)

Clause B2 DURABILITY: Performance B2.3.1(b) 15 years and B2.3.2(a)

Clause C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE: Performance C3.5 and C3.7

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2, E2.3.5, E2.3.6 and E2.3.7

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1

6. Conditions and Limitations of Use

- 1. The system is certified:
 - a. as a cavity fixed external wall cladding for buildings:



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- i. within the scope limitations of the NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Paragraph 1.1, and
- ii. with a risk score of up to 20, calculated in accordance with the NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Table 2, and
- iii. situated in in NZS 3604:2011 Wind Zones up to, and including Extra High, or
- b. as a cavity fixed external wall cladding for buildings specifically engineering designed (SED):
 - i. up to 25m in height (up to 10m in height when using HardieTM CLDTM Structural Cavity Battens), and
 - ii. with an inter-storey drift of span/180 maximum, and
 - iii. the design ultimate limit state (ULS)differential wind pressure does not exceed 3.2 kPa (2.5kPa when using timber cavity battens), and
 - iv. with the stud and batten spacing no more than 600mm centres, and
- c. located:
 - i. in all exposure zones (except microclimates) as defined in NZS 3604:2011 section 4.2, and
 - ii. anywhere in relation to the relevant boundary for Importance Levels 1 to 4 buildings within the scope of:
 - C/AS1, Second edition, 2 November 2023 paragraph 1.1.1, or
 - C/AS2, amendment 3, 2 November 2023 paragraph 1.1.1
- 2. The system shall be specified, installed, inspected and maintained in accordance with the following sets of documents collectively referenced as the Applicable Technical Specification to the extent that their scope covers that for this Certificate:
 - a. For the Horizontal applications with timber batten:
 - i. StriaTM Cladding Timber Cavity Batten Technical Specification, June 2024;
 - ii. James Hardie Fire & Acoustic Design Manual (September 2024) section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, specifically details JHETGS30h and JHETGS60h.
 - b. For the Horizontal applications with Hardie[™] CLD[™] Structural Cavity Batten:
 - i. StriaTM Cladding HardieTM CLDTM Structural Cavity Batten Technical Specification, June 2024;
 - ii. James Hardie Fire & Acoustic Design Manual (September 2024) section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, specifically details JHETGS30h and JHETGS60h.
 - c. For the Vertical Application:
 - i. Stria[™] Cladding Vertical Installation Technical Specification, June 2024;
 - ii. James Hardie Fire & Acoustic Design Manual (September 2024) section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, specifically details JHETGS30v, JHETGS60v and JHETSS60v.



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(Note: Provisions within the documents above related to the use of the system with steel-frame construction are outside the scope of this certification):

- d. James Hardie Fire & Acoustic Design Manual (September 2024) section 4:16 "Control of External Fire Spread", Figure No's 2 to 11, 14 to 18 and 21 to 26, in particular the installation details JHETGS30h, JHETGS30v, JHETGS60h and JHETGS60v. These details have only been assessed and certified with respect to external fire spread via StriaTM Cladding. For walls located within 1.0 m of a relevant boundary, StriaTM Cladding may be used as an external façade/cladding attached to the exterior of fire rated wall systems as depicted within the Fire and Acoustic Design Manual (September 2024). Fire Resistance rating performance of the wall assembly falls outside the scope of this certificate.
- 3. In wind zones greater than Very High a rigid air barrier which complies with Table 23 of E2/AS1 3rd Edition, amendment 10, 5 November 2020 shall be used. In Buildings exceeding 10 m in height RAB™ Board must be used including horizontal control joints in accordance with the requirements of the Codemark certificate for RAB™ Board. (Refer to GM-CM30130)
- 4. The system is certified for use:
 - a. with the ancillary components as described in this certificate, and
 - b. with aluminium window and door joinery that is installed with vertical jambs and horizontal heads and sills. Only joinery compliant with the requirements of NZS 4211:2008 including amendment 1 for the relevant Wind Zone or wind pressure shall be used or have a current CodeMark.
- 5. Stria[™] Cladding shall only be installed on vertical surfaces.
- 5. All exposed faces, including top edges at sills and all bottom edges of StriaTM Cladding panel and fibre cement ancillary components shall be finished with a latex exterior paint system complying with any of Parts 7, 8, 9, or 10 of AS 3730.
- 7. E2.3.5 and E2.3.6 compliance is limited to cavities created between the internal surface of the panels and the underlay or RAB™ Boards.

7. Health and Safety Information

Standard industry safety practices and manufacturer safety requirements as detailed in the technical literature including the applicable SDS must be observed at all times. Please refer to James Hardie SDS Fibre Cement Products June 2022

8. Basis for Certification

The certification decision is based on independent technical review(s) of test report(s), engineering opinion(s) and other documented evidence(s), factory audit(s) and site review(s)

Code Clause	Compliance pathway	Evidence
B1 STRUCTURE	Informed by NZS3604:2011 and comparison with E2/AS1	001, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 025, 026, 027 and 028



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The purpose of construction site audits is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In issuing this certificate, Global-Mark has relied on the independent expert and/or laboratory advise or reports. In placing the CodeMark mark on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein.

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B2 DURABILITY	Informed by expert judgement	001, 024, 026, 027 and 028
C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE	Informed by expert judgement and testing to NFPA 285	001, 002, 003, 004, 005, 006, 007, 008, 010, 011, 026, 027, 028 and 029
E2 EXTERNAL MOISTURE	Informed by expert judgement and testing to AS/NZS4284	001, 009, 012, 013, 014, 015, 016, 017, 018, 019, 020, 021, 022, 023, 026, 027 and 028
F2 HAZARDOUS BUILDING MATERIALS	Informed by expert judgement	001, 021, 026, 027, 028 and 030

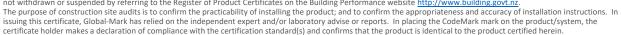
9. Supporting Documentation for Certification

Rev	Author	Description	Date and/or Revision
001	GLOBAL-MARK	Codemark Certification GM-CM30130 HomeRAB $^{\rm TM}$ Pre-Cladding and RAB $^{\rm TM}$ Board by JAMES HARDIE	Rev B
002 *	BRANZ	Fire Assessment Report based Cone calorimeter test.	FH3182 21 November 2002
003 *	BRANZ	Fire Assessment Report based Cone calorimeter test.	FH 2976 15 May 2001
004 *	BRANZ	Fire Assessment Report based Cone calorimeter test (BRANZ Project No. FC10254-001).	FSR 4206 Issue2 7 November 2018
005*	BRANZ	Fire technical Opinion: Technical opinion based on NFPA 285 Compliance with NZBC C/AS2, clause 5.8.2 (b) and C/VM2 Part A (a).	FC12172-001 1 November 2019
006*	BRANZ	Fire Assessment Report Review of James Hardie Fire and Acoustic Manual	FAR 4620 – 04 November 2016
007*	BRANZ	Fire technical Opinion: Fire resistance of James Hardie Wall Systems with Service Penetrations	FC12040-004 -03 December2019
008*	BRANZ	Technical Assessment "Fire Resistance of External Wall and Soffit" _Various JH Products	FAR 2597- 5th October 2005



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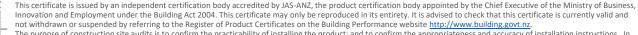
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009*	BRANZ	E2 Weathertightness Opinion for the Appraisal of Linea Oblique Weatherboard (Vertical) Cavity Cladding	TP2355-02, dated 19 November 2015
010*	Intertek B&C	JH cavity fix wall assembly fire test as per NFPA 285	J6706.01-121-24 - 20th August 2019
011*	Intertek B&C	JH cavity fix wall assembly fire test as per NFPA 285	J6707.01-121-24 - 21st August 2019
012*	Clarkson Consulting Services	JH NZ_RAB_Weathertightness Assessment_200626_R2.1	August 2022
013*	James Hardie Building Product	Weathertightness Testing of Residential Façade Fibre Cement Cladding System On Cavity Battens to the requirement of Verification Method E2/VM1	TS061-05, dated 15 February 2006
014*	James Hardie Building Product	TESTING OF A TITAN RESIDENTIAL FIBRE CEMENT CLAD FAÇADE FOR COMPLIANCE WITH THE REQUIREMENTS OF AS/NZS 4284:1985 "TESTING OF BUILDING FACADES"	TS010-06, dated 14 November 2006
015*	James Hardie Technical Support group	Weathertightness (E2/VM1)	TS003-13, dated 4 December 2013
016*	James Hardie Technical Support group	Weathertightness (E2/VM1)	TS022-13, dated 12 November 2013
017*	James Hardie Technical Support group	Weathertightness (E2/VM1)	TS033-13, dated 8 January 2014
018*	James Hardie Technical Support group	Weathertightness & Façade System (E2/VM1)	TS009-15, dated 14 October 2015
019*	James Hardie Technical Support group	Weathertightness & Façade System (E2/VM1)	TS052-11, dated 16 December 2011
020*	Façade Testing New Zealand Limited,	Testing of James Hardie NZ ExoTec Façade panel top hat rainscree façade system in accordance with AS/NZS 4284:2008	rn FT-R1005, dated May 2017





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021*	Façade Lab Ltd	Testing of James Hardie Linea – Weatherboard on RAB Board in accordance with E2/VM2 (BRANZ – EM7)	20-15 dated 10/3/2021
022*	Façade Lab Ltd	Testing of James Hardie Linea Oblique vertical weatherboard on rigid wall underlay to E2/VM2 (BRANZ EM7) using tests from AS/NZS 4284:2008 'Testing of Building Facades'	20-16 dated 11/12/2020
023*	BRANZ	BRANZ Assessment – Face Load Strength of James Hardie Linea Weatherboard Clad Walls and Variations of Sheet thickness and Nail type (reviews STO483)	STO102/SM30/SJT dated 11 November 2002
024*	BRANZ	Durability Opinion on the Linea Weatherboard System	DA 0220 dated 24/09/2017
025*	BRANZ	Face Loading Testing of Low-Density Thick Weatherboard	Report ST483 dated 20 February 2001
026	James Hardie New Zealand Limited	d Stria™ Cladding Timber Cavity Batten Technical Specification	June 2024
027	James Hardie New Zealand Limited	Stria [™] Cladding Vertical Installation Technical Specification	June 2024
028	James Hardie New Zealand Limited	${}^{\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	June 2024
029	James Hardie New Zealand Limited	James Hardie Fire & Accoustic Design Manual. Section 4:16 Control of External Fire Spread, figures No's to 11, 14 to 18 and 21 to 26, specifically details JHETGS30h, JHETGS30v, JHETGS60h, JHETGS60v, JHETSS60h and JHETSS60vJHETGL30, JHETGL60 and JHETLL60	September 2024
030	James Hardie New Zealand Limited	LQA8N – Safety data sheet – James Hardie Fibre Cement Sheet Products	Version No.: 2.0 ISSUED Date: 22/06/2022

^{*} These documents were provided commercial in confidence and are not publicly available

10. Supporting Information About Description (Optional)

The StriaTM Cladding panels are pre-primed with an acrylic primer on the front face and edges. The StriaTM Cladding panels are 14 mm thick and are available 325 mm or 405 mm wide by 4200 mm long.





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They are manufactured from a reduced density cellulose fibre cement formulation. The panels are formed, cut to length and then cured by high-pressure autoclaving. After autoclaving, a profile is machined on the top edge of the front face, and a rebated lap is machined on the bottom of the back face of the panel. The front edge at the bottom of the board and the board ends are finished square. The StriaTM Cladding panels are manufactured to meet the requirements of AS/NZS 2908.2.

James Hardie supplies the following ancillary components:

- For the horizontal and vertical applications
 - Rigid wall underlay HomeRAB™ Pre-Cladding and RAB™ Board
 - HardieTM 14 mm Trimline Joint Flashing The joint flashings are available in extruded aluminium in 3000 mm lengths.
 - HardieTM 14 mm External Box Corner Anodised aluminium extrusion used to create external corners in 3000 and 4000 mm lengths.
 - o Cavity vent strip Hardie™ 28 mm aluminium cavity closure or Hardie™ uPVC vent strip, available in 3000 mm lengths.
 - o Hardie[™] 9mm Panel Aluminium External Box Corner- A box corner mould to form the external joints. 9mm etch primed available in 2700, 3000 and 4000 mm
- For the horizontal applications
 - Vertical Joint Flashing. The joint flashings are available in extruded aluminium in 3000 mm lengths.
 - Hardie[™] 14 mm Internal Corner Flashing Anodised aluminium extrusion used to create internal corners in 3000 mm lengths
 - Hardie[™] 14 mm Aluminium Window Jamb Flashing Aluminium moulding used beside window opening to end butt the Stria Cladding in 3000 mm lengths
 - o Hardie[™] CLD[™] Structural Cavity Batten 19mm x 70mm fibre cement cavity batten in 2450mm and 3000mm
- For the vertical applications
 - o HardieTM horizontal cavity battens 45 x 20 mm thick Radiata pine batten treated to Hazard Class H3.1. The top edge is bevelled with an 18° slope. The back face is grooved with 22 mm wide x 5 mm deep rebates at 50 mm centres, and the front face is grooved with 6 mm wide x 6 mm deep rebates at 150 mm centres. The grooves are offset on each face.
 - Hardie[™] 14 mm Internal Corner Flashing Anodised aluminium extrusion used to create internal corners in 3000 mm lengths
 - o Trimline Horizontal Jointer A jointer to cover the butt joint of HardieTM 14 mm Trimline Joint Flashing in 100 mm
 - o Trimline External Corner Jointer and Trimline Internal Corner Jointer Joins HardieTM 14 mm Trimline Joint Flashing at corner

Other components not supplied by James Hardie but meet the following requirements

For the horizontal and vertical applications



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- Flexible wall underlay building underlay complying with NZBC Acceptable Solution E2/AS1, Table 23, or breather-type membranes covered by a valid Codemark Certification for use as wall underlays
- Flexible wall underlay support polypropylene strap, 75 mm galvanised mesh, galvanised wire, or additional vertical battens for securing the flexible wall underlay in place and preventing bulging of the bulk insulation into the drainage cavity. (Note: mesh and wire galvanising must comply with AS/NZS 4534.)
- Flexible sill, head and jamb flashing tape flexible flashing tapes complying with NZBC Acceptable Solution E2/AS1,
 Paragraph 4.3.11, or flexible flashing tapes covered by a valid Codemark Certification for use around window and door joinery openings.
- o Cavity batten fixings 40 x 2.8 mm flat head hot-dip galvanised nails.
- o StriaTM Cladding fixings (with flexible wall underlays) 75 x 3.15 mm HardieTM Flex hot-dip galvanised or stainless-steel nails
- Stria[™] Cladding fixings (with flexible wall underlays) 65 x 2.87 mm D-head or RounDrive hot-dip galvanised or stainlesssteel ring shank nails.
- StriaTM Cladding fixings (with rigid wall underlays up to 10 mm thick) 75 x 3.06 mm D-head or RounDrive hot-dip galvanised or stainless-steel ring shank nails
- o (Note: Stainless steel fixings must be Grade 316 and hot-dip galvanising must comply with AS/NZS 4680).
- Joinery head flashings extruded or folded from aluminium or galvanised steel to suit the window or door trim opening.
 Refer to NZS 3604, Section 4 and NZBC Acceptable Solution E2/AS1, Table 20 for durability requirements.
- o Flexible sealant sealant complying with NZBC Acceptable Solution E2/AS1, or sealant covered by a valid Codemark Certification for use as a weather sealing sealant for exterior use.

• For the horizontal applications

- Cavity battens nominal 50 mm wide by 25 mm thick (minimum finished size of 45 mm wide by 18 mm thick) timber treated to Hazard Class H3.1.
- Timber trim and moulding for use around windows and door. Timber trim and moulding must be finished in accordance with their manufacturer specifications to achieve the required durability
- Planted sill and scribers timber treated to Hazard Class H3.1, pre-primed before installation. Window and door trim cavity air seal - air seals complying with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.6, or self-expanding, moisture cure polyurethane foam air seals covered by a valid Codemark Certification suitable for use around window, door and other wall penetration openings.
- Hardie[™] CLD[™] Structural Cavity Battens fixings 65 x 2.87mm RounDrive Ring Shank Nail -For fixing Hardie[™] CLD[™] Structural Cavity Battens to the framing.
- StriaTM Cladding fixings- 30 x 1.6mm C Series Brad Nails -304SS brad nails used to install StriaTM Cladding to the HardieTM CLDTM Structural Cavity Batten.



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- Adhesive Sealant -Sikaflex® 11FC Polyurethane adhesive sealant manufactured by Sika® for applying between the StriaTM cavity panels and HardieTM CLDTM Structural Cavity Battens.
- For the vertical applications
 - Window and door trim cavity air seal air seals complying with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.6, or self-expanding, moisture cure polyurethane foam air seals covered by a valid Codemark Certification suitable for use around window, door and other wall penetration openings.

11. Supporting Information About Intended Use (Optional)

Nil

12. Supporting Information About Conditions and Limitations of Use (Optional)

Stria™ Cladding can be used to provide fire resistance rated construction, but this aspect has not been assessed and is outside the scope of this certificate.

All CodeMark certificates that are current much be registered with MBIE. MBIE maintains a register of valid product certificates. <u>Please find</u> the register here.

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.

