



LineaTM Weatherboard by James Hardie Direct Fixed and Cavity Cladding systems



CERTIFICATE: CMNZ 30018
Version No: RevN

LineaTM Weatherboard is a 16 mm thick bevelback fibre cement weatherboard, which is designed to be used as part of an external wall cladding system for residential and light commercial type buildings where domestic construction techniques are used.

LineaTM Weatherboard Direct Fixed Cladding system consists of LineaTM Weatherboards applied direct to the external wall framing over a flexible underlay.

LineaTM Weatherboard Cavity Cladding system consists of LineaTM Weatherboards fixed over timber battens to form the cavity.

Both cladding methods (referenced as the system) incorporate secondary protection behind all internal and external corners, flashings for window, door and meter box penetrations as well as air seals to all wall penetrations.

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 systems if designed, used, installed and maintained in accordance with this certificate will meet the following provisions of the NZBC:

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2, B1.3.4 for the relevant physical conditions of B1.3.3 (a), (f), (h), (j) and (g).

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

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

DESCRIPTION OF BUILDING METHOD OR PRODUCT

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.

CERTIFICATE HOLDER DETAILS

James Hardie New Zealand Limited

Trading as James Hardie

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ORIGINAL ISSUE DATE	VERSION DATE	RECERTIFICATION			
26/05/2020	06/10/2022	03/07/2025			
8 SIGNATURE					
Jen Hoha					
Herve Michoux, Global Mark Managing Director					

PRODUCT CERTIFICATION BODY

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The complaints process for this certificate

https://www.global-mark.com.au/?s=complaint



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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.

CERTIFICATE V2





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6 CONDITIONS AND LIMITATIONS OF USE

- 1. The systems (respectively) are certified:
 - a. as a direct fixed external wall cladding for buildings:
 - i. within the scope limitations of the New Zealand Building Code (NZBC) Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Paragraph 1.1, and
 - ii. with a risk score of 0-12, calculated in accordance with the NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Table 2, and
 - iii. situated in NZS 3604:2011 Wind Zones up to, and including Very High, and
 - b. as a cavity fixed external wall cladding for buildings:
 - i. within the scope limitations of the NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Paragraph 1.1,
 - 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,
 - iii. situated in in NZS 3604:2011 Wind Zones up to, and including Extra High, and
 - c. as a cavity fixed external wall cladding for buildings specifically engineering designed (SED):
 - i. up to 25m in height, 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, and
 - iv. with the stud spacing no more than 600mm centres
 - d. located:
 - i. in all exposure zones (except microclimates) as defined in NZS 3604:2011 section 4.2, and
 - ii. located anywhere in relation to the relevant boundary for building within the scope of:
 - C/AS1, amendment 5, 5 November 2020 or
 - C/AS2, amendment 2, 5 November 2020
- 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 direct fixed external wall cladding application
 - i. James Hardie LineaTM Weatherboard Direct Fix Technical Specification (May 2020)
 - ii. Fire & Acoustic Design Manual (November 2020) by James Hardie section 4:16 Control of External Fire Spread, figures No's. 1 to 8 and 12 to 20, specifically details JHETGL30 and JHETGL60. These details have only been assessed and certified with respect to external fire spread via LineaTM Weatherboard. For walls located within 1.0m of a relevant boundary, LineaTM Weatherboard 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 (November 2020). Fire Resistance rating performance of the wall assembly falls outside the scope of this certificate
 - iii. BRANZ Appraisal No 446 (2020) LineaTM Weatherboard Direct Fixed Cladding
 - b. For cavity fixed external wall cladding applications:
 - i. James Hardie LineaTM Weatherboard Cavity Fix Technical Specification (May 2020)
 - ii. Fire & Acoustic Design Manual (November 2020) by James Hardie section 4:16 Control of External Fire Spread, figures No's. 1 to 8 and 12 to 20, specifically details







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JHETGL30 and JHETGL60. These details have only been assessed and certified with respect to external fire spread via LineaTM Weatherboard. For walls located within 1.0m of a relevant boundary, LineaTM Weatherboard 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 (November 2020). Fire Resistance rating performance of the wall assembly falls outside the scope of this certificate

iii. BRANZ Appraisal No 447 (2020) LineaTM Weatherboard Cavity Cladding

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

- 3. In wind zones greater than Very High a rigid air barrier which complies with Table 23 of E2/AS1 shall be used. In Buildings exceeding 10 m in height RABTM Board must be used including horizontal control joints in accordance with the requirements of the CodeMark certificate for RABTM Board. (Refer to GM-CM30130)
- 4. The system is certified for use:
 - a. with the ancillary components as described in this certificate,
 - 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. The weatherboards must only be installed horizontally on vertical surfaces. .
- 6. All exposed faces, including top edges at sills and all bottom edges of LineaTM Weatherboard and fibre cement ancillary components must 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 RABTM Board's.

7 HEALTH AND SAFETY INFORMATION

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

9 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	7	Evidence	
B1 STRUCTURE	Alternative solution -Expert judgement		001, 002, 003, 021 and 022	
B2 DURABILITY	Alternative solution -Expert judgement		001, 002, 003, 021 and 022	
C3 FIRE AFFECTING AREAS BEYOND THE SOURCE	Alternative solution -Expert judgement		001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 021, 022 and 023	
E2 EXTERNAL MOISTURE	Alternative solution -Expert judgement	- /	001, 002, 003, 013, 014, 015, 016, 017, 018, 019, 020, 021 and 022	
F2 HAZARDOUS BUILDING MATERIALS	Alternative solution -Expert judgement		001, 002, 003, 021, 022 and 024	
10 CURRORTING DOCUMENTATION FOR CERTIFICATION				







LineaTM Weatherboard by James Hardie Direct Fixed and Cavity Cladding systems

Ref	Author	Title	Date and/or revision
001	BRANZ	LINEA TM - WEATHERBOARD CAVITY CLADDING - Appraisal No. 447 [2020]	02 September 2020
002	BRANZ	LINEA TM - WEATHERBOARD DIRECT FIXED CLADDING - Appraisal No. 446 [2020]	02 September 2020
003*	BRANZ	BRANZ Appraisals Means of Compliance - Basis of Appraisal - LINEA TM WEATHERBOARD DIRECT FIXED AND	TV10686-001 21/08/2020
		CAVITY CLADDING - Appraisal No 446 and 447 (2020)	
004*	BRANZ	Fire Assessment Report based Cone calorimeter test.	FH3182 21 November 2002
005*	BRANZ	Fire Assessment Report based Cone calorimeter test.	FH 2976 15 May 2001
006*	BRANZ	Fire Assessment Report based Cone calorimeter test (BRANZ Project No. FC10254-001).	FSR 4206 Issue2 7 November 2018
007*			FC12172-001 1 November 2019
		and C/VM2 Part A (a).	
008*	BRANZ	Fire Assessment Report Review of James Hardie Fire and Acoustic Manual	FAR 4620 – 04 November 2016
009*	BRANZ	Fire technical Opinion: Fire resistance of James Hardie Wall Systems with Service Penetrations	FC12040-004 -03 december2019
010*	BRANZ	Technical Assessment "Fire Resistance of External Wall and Soffit" _Various JH Products	FAR 2597- 5th October 2005
011*	Intertek B&C	JH cavity fix wall assembly fire test as per NFPA 285	J6706.01-121-24 - 20th August 2019
012*	Intertek B&C	JH cavity fix wall assembly fire test as per NFPA 285	J6707.01-121-24 - 21st August 2019
013*	Clarkson Consulting Services	JH NZ_RAB_Weathertightness Assessment_200626_R1.5	26 June 2020
014*	* James Hardie Building Product Weathertightness Testing of Residential Façade Fibre Cement Cladding System On Cavity Battens to the		TS061-05, dated 15 February 2006
		requirement of Verification Method E2/VM1	TS010-06, dated 14 November 2006
015*	James Hardie Building Product	mes 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"	
016*	James Hardie Technical Support	Weathertightness (E2/VM1)	TS003-13, dated 4 December 2013
	group		
017*	James Hardie Technical Support	Weathertightness (E2/VM1)	TS022-13, dated 12 November 2013
	group		
018*	James Hardie Technical Support	Weathertightness (E2/VM1)	TS033-13, dated 8 January 2014
	group		
019*	James Hardie Technical Support	Weathertightness & Façade System (E2/VM1)	TS009-15, dated 14 October 2015
	group		
020*			FT-R1005, dated May 2017
024	group	system in accordance with AS/NZS 4284:2008	
021	James Hardie New Zealand Limited	James Hardie Linea TM Weatherboard Direct Fix Technical Specification (May 2020)	May 2020
022	James Hardie New Zealand Limited	James Hardie Linea TM Weatherboard Cavity Fix Technical Specification (May 2020)	May 2020







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023	James Hardie New Zealand Limited	James Hardie Fire & Acoustic Design Manual. Section 4:16 Control of External Fire Spread, figures No's. 1 to 8	November 2020
		and 12 to 20, specifically details JHETGL30 and JHETGL60	
024	James Hardie New Zealand Limited	LQA8N - SAFETY DATA SHEET- JAMES HARDIE FIBRE CEMENT SHEETS PRODUCTS	Version No.: 2.0
			ISSUED Date: 22/06/2022
* These documents were provided commercial in confidence and are not publicly available			









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11 SUPPORTING INFORMATION ABOUT DESCRIPTION (OPTIONAL)

LineaTM Weatherboard cladding is finished with a latex paint system

LineaTM Weatherboards are bevel-back profile weatherboards with tongue and grove at each end for jointing. The weatherboards are pre-primed with an acrylic primer on the front face and edges. LineaTM Weatherboards are 16 mm thick and are available 150mm and 180 mm wide. The boards are supplied 4200 mm long.

LineaTM Weatherboards are manufactured from a reduced density cellulose fibre cement formulation. The boards are formed, cut to length and then cured by high-pressure autoclaving. After autoclaving, a revel profile is machined on the back face of the weatherboard, the bottom of the board is chamfered and the tongue and grove are machined on the ends. LineaTM Weatherboards are manufactured to meet the requirements of AS/NZS 2908.2.

James Hardie supplies the following ancillary components:

- Hardie[™] Axent[™] Trim a 19mm thick fibre cement trim manufactured from a reduced density cellulose fibre cement formulation. Hardie[™] Axent[™] Trim is pre-primed with an acrylic primer on the front face and both edges, and is available in sizes of 70 mm and 89mm wide by 3000 mm long.
- External and internal corner mouldings chromate treated aluminium external box corner, 90° internal corner 'W' mould and 135° internal corner 'W' mould. The mouldings are available in 2,700 mm and 4,000 mm lengths.
- Corner soakers 90° soakers are available for 150 mm and 180 mm Linea™ Weatherboards. The soakers are available in chromate treated aluminium, copper and stainless steel.
- Cavity vent strip uPVC, available in 3,000 mm lengths.
- Rigid wall underlay HomeRAB™ Pre-Cladding, RAB™ Board or fibre cement sheet complying with NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Table 23, or rigid sheathing covered by a valid BRANZ Appraisal for use as rigid air barrier systems.

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

- Flexible wall underlay building paper complying with NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Table 23, or breather-type membranes covered by a valid CodeMark certificate for use as wall underlays.
- Flexible building underlay support polypropylene strap at 300 mm centres fixed horizontally and drawn taut, 75 mm galvanised mesh, galvanised wire, or additional vertical battens for securing the flexible building 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. Additional vertical battens may also be installed to provide support.)
- Flexible sill, head and jamb flashing tape flexible flashing tapes complying with NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Paragraph 4.3.11, or flexible flashing tapes covered by a valid BRANZ Appraisal for use around window and door joinery openings.
- 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.
- Cavity batten fixings 40 x 2.8 mm flathead hot-dip galvanised nails.
- Joinery sill and head flashings 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, 3rd Edition, amendment 10, 5 November 2020, Table 20 for durability requirements.
- Planted sill and scribers timber treated to Hazard Class H3.1, pre-primed before installation.







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- Window and door trim cavity air seal air seals complying with NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Paragraph 9.1.6, or self-expanding, moisture-cure polyurethane foam air seals covered by a valid BRANZ Appraisal suitable for use around window, door and other wall penetration openings.
- Flexible sealant sealant complying with NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, or sealant covered by a valid BRANZ Appraisal for use as a weather sealing sealant for exterior use.
- Linea[™] Weatherboard fixings
 - o Direct fix cladding method:- 40 x 2.8 mm flathead hot-dip galvanised HardieTM Flex nails or stainless steel ring shank HardieTM Flex nails (for concealed nailing), and 60 x 3.15 mm jolthead hot-dip galvanised nails or stainless steel ring shank nails (for face nailing).
 - Cavity cladding method 60 x 3.15 mm flathead hot-dip galvanised HardieTM Flex nails or stainless steel ring shank HardieTM Flex nails (for concealed nailing in NZS 3604 Wind Zones up to, and including, Very High), 75 x 3.15 mm jolthead hot-dip galvanised nails or stainless steel ring shank nails (for face nailing in NZS 3604 Wind Zones up to, and including, Very High), and 90 x 3.55 mm jolthead hot-dip galvanised nails or stainless steel ring shank nails (for face nailing in the NZS 3604 Extra High Wind Zone and specific design wind pressures up to a maximum design differential ULS of 3.2 kPa).
- HardieTM Axent[™] Trim fixings 60 x 3.15 mm or 75 x 3.15 mm hot-dip galvanised jolthead nails and stainless steel ring shank jolthead nails. (Note: Stainless steel fixings must be Grade 316 and hot-dip galvanising must comply with AS/NZS 4680).
- Flashings balustrade and parapet cap flashings and inter-storey joint flashings. Refer to NZS 3604 Section 4, and NZBC Acceptable Solution E2/AS1, 3rd Edition, amendment 10, 5 November 2020, Table 20 for durability requirements.

Aluminium joinery head flashing - as supplied by the joinery manufacturer or the contractor

SUPPORTING INFORMATION ABOUT INTENDED USE (OPTIONAL)

Nil

13 SUPPORTING INFORMATION ABOUT CONDITIONS AND LIMITATIONS OF USE (OPTIONAL)

Linea TM Weatherboard Cavity 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

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