CodeMark>>>

Certificate no: CMNZ30018

Version: O

Original issue date: 26/05/2020 Version date: 23/10/2024 Renewal Date: 03/07/2025

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

Linea[™] Weatherboard by James Hardie Direct Fixed and Cavity Cladding systems

3. Description of Building Method or Product

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 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

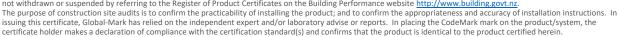
6. Conditions and Limitations of Use

- 1. The systems (respectively) are certified:
 - a. as a direct fixed external wall cladding for buildings:



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- 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, or
- 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, 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 NZS 3604:2011 Wind Zones up to, and including Extra High, or
- 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, and
- 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, 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 direct fixed external wall cladding application:
 - i. James Hardie LineaTM Weatherboard Direct Fix Technical Specification (June 2023);
 - ii. Fire & Acoustic Design Manual (September 2024) by James Hardie section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, 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.



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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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- b. For cavity fixed external wall cladding applications:
 - i. James Hardie LineaTM Weatherboard Cavity Fix Technical Specification (June 2023):
 - ii. Fire & Acoustic Design Manual (September 2024) by James Hardie section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, 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 facade/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) Linea[™] 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 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 RABTM Board. (Refer to GM-CM30130).
- 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. The weatherboards must only be installed horizontally on vertical surfaces.
- 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 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**



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| B1 STRUCTURE | Informed by NZS3604:2011 and comparison with E2/AS1 | 001, 002, 003, 004, 022 and 023 |
|---|--|---|
| B2 DURABILITY | Informed by based on expert judgement | 001, 002, 003, 004, 022 and 023 |
| 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, 009, 010, 011, 012, 013, 022, 023 and 024 |
| E2 EXTERNAL MOISTURE | Informed by expert judgement and testing to AS/NZS4284 | 001, 002, 003, 004, 014, 015, 016, 017, 018, 019, 020, 021, 022and 023 |
| F2 HAZARDOUS BUILDING MATERIALS | Informed by expert judgement | 001, 002, 003, 004, 022, 023 and 025 |

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 | LINEA [™] - WEATHERBOARD CAVITY CLADDING - Appraisal No. 447 [2020] | 02 September 2020 |
| 003 | BRANZ | LINEA [™] - WEATHERBOARD DIRECT FIXED CLADDING - Appraisal No. 446 [2020] | 02 September 2020 |
| 004* | BRANZ | BRANZ Appraisals Means of Compliance - Basis of Appraisal - LINEA TM WEATHERBOARD DIRECT FIXED AND CAVITY CLADDING - Appraisal No 446 and 447 (2020) | TV10686-001 21/08/2020 |
| 005* | BRANZ | Fire Assessment Report based Cone calorimeter test. | FH3182 21 November 2002 |
| 006* | BRANZ | Fire Assessment Report based Cone calorimeter test. | FH 2976 15 May 2001 |
| 007* | BRANZ | Fire Assessment Report based Cone calorimeter test (BRANZ Project No. FC10254-001). | FSR 4206 Issue2 7 November 2018 |



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| 008* | 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 |
|------|--------------------------------------|---|---------------------------------------|
| 009* | BRANZ | Fire Assessment Report Review of James Hardie Fire and Acoustic Manual | FAR 4620 – 04 November 2016 |
| 010* | BRANZ | Fire technical Opinion: Fire resistance of James Hardie Wall Systems with Service Penetrations | FC12040-004 -03 december2019 |
| 011* | BRANZ | Technical Assessment "Fire Resistance of External Wall and Soffit" _Various JH Products | FAR 2597- 5th October 2005 |
| 012* | Intertek B&C | JH cavity fix wall assembly fire test as per NFPA 285 | J6706.01-121-24 - 20th August 2019 |
| 013* | Intertek B&C | JH cavity fix wall assembly fire test as per NFPA 285 | J6707.01-121-24 - 21st August 2019 |
| 014* | Clarkson Consulting Services | JH NZ_RAB_Weathertightness Assessment_200626_R1.5 | 26 June 2020 |
| 015* | 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 |
| 016* | 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 |
| 017* | James Hardie Technical Support group | Weathertightness (E2/VM1) | TS003-13, dated 4 December 2013 |
| 018* | James Hardie Technical Support group | Weathertightness (E2/VM1) | TS022-13, dated 12 November 2013 |
| 019* | James Hardie Technical Support group | Weathertightness (E2/VM1) | TS033-13, dated 8 January 2014 |





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| 020* | James Hardie Technical Support group | Weathertightness & Façade System (E2/VM1) | TS009-15, dated 14 October 2015 |
|------|---|--|---|
| 021* | James Hardie Technical Support group | Testing of James Hardie NZ ExoTec Façade panel top hat rainscreen façade system in accordance with AS/NZS 4284:2008 | FT-R1005, dated May 2017 |
| 022 | James Hardie New Zealand Limited | d James Hardie Linea™ Weatherboard Direct Fix Technical Specification | June 2023 |
| 023 | James Hardie New Zealand Limited | d James Hardie Linea™ Weatherboard Cavity Fix Technical Specification | June 2023 |
| 024 | James Hardie New Zealand Limited | d James Hardie Fire & Acoustic Design Manual. Section 4:16 Control of External Fire Spread, figures No's. 2 to 11, 14 to 18 and 21 to 26, specifically details JHETGL30 and JHETGL60 | September 2024 |
| 025 | James Hardie New Zealand Limited | d 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)

Linea[™] Weatherboard cladding is finished with a latex paint system

LineaTM Weatherboards are bevel-back profile weatherboards with tongue and groove at each end for jointing. The weatherboards are preprimed with an acrylic primer on the front face and edges.

Linea™ 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:



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- 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.
- 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





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- Direct fix cladding method: 40 x 2.8 mm flathead hot-dip galvanised Hardie[™] Flex nails or stainless-steel ring shank Hardie[™] 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).
- O Cavity cladding method 60 x 3.15 mm flathead hot-dip galvanised Hardie[™] Flex nails or stainless steel ring shank Hardie[™] 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).
- Hardie[™] 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

11. Supporting Information About Intended Use (Optional)

Nil

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

LineaTM 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

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

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.

