BRANZ Appraised

Appraisal No. 1313 (2026)

HARDIE™ PLANK WEATHERBOARD 10 mm

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BRANZ Appraisals

Technical Assessments of products for building and construction.

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Product

1.1 Hardie™ Plank Weatherboard 10 mm is a fibre cement weatherboard, 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.

Scope

Direct-fixed

2.1 Hardie™ Plank Weatherboard 10 mm has been appraised for use as an external wall cladding for timber-framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1; and,
- with a risk score of 0-6, calculated in accordance with NZBC Acceptable Solution E2/AS1; and,
- situated in Wind Zones up to, and including, Very High, determined in accordance with NZS 3604.

Cavity-fixed

2.2 Hardie™ Plank Weatherboard 10 mm has been appraised for use as an external wall cladding for timber-framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1; and,
- situated in Wind Zones up to, and including, Extra High, determined in accordance with NZS 3604.

2.3 Hardie™ Plank Weatherboard 10 mm must only be installed horizontally on vertical, flat surfaces.

2.4 Hardie™ Plank Weatherboard 10 mm must only be used with window and doors that comply with NZBC Acceptable Solution E2/AS1 or that are covered by a valid BRANZ Appraisal or NZ CodeMark certification.

Building Regulations

New Zealand Building Code (NZBC)

3.1 **In the opinion of BRANZ, Hardie™ Plank Weatherboard 10 mm, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC:**

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. Hardie™ Plank Weatherboard 10 mm meets the requirements for loads arising from self-weight, wind, impact and creep [i.e. B1.3.3 (a), (h), (j) and (q)]. See Paragraphs 9.1-9.4.

Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years and B2.3.2. Hardie™ Plank Weatherboard 10 mm meets these requirements. See Paragraphs 10.1-10.3.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. Hardie™ Plank Weatherboard 10 mm meets this requirement. See Paragraphs 14.1-14.4.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Hardie™ Plank Weatherboard 10 mm meets this requirement.

Technical Specification

4.1 System components and accessories for Hardie™ Plank Weatherboard 10 mm, which are supplied by James Hardie New Zealand Limited, are:

Hardie™ Plank Weatherboard 10 mm

- Hardie™ Plank 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. The weatherboards are supplied pre-primed, with a smooth finish and a machined chamfer to the bottom edge. Hardie™ Plank Weatherboards are manufactured to meet the requirements of AS/NZS 2908.2. The weatherboards are supplied 10 mm thick, 180 mm wide and 4,200 mm long and are identified by the name printed at regular intervals on the back.

Accessories

- **Hardie™ Plank 10 mm External Corner Soaker** - etch-primed aluminium, available 180 mm long.
- **Hardie™ Plank 10 mm Back Soaker** - etch-primed aluminium, available 180 mm long.
- **Hardie™ Plank 10 mm External Box Corner** - etch-primed aluminium, available 3,000 or 4,000 mm long
- **Corner Underflashing** - 50 x 50 mm PVC moulding used as under flashings for internal and external corners, available 3,000 mm long.
- **Vent Strip** - white PVC, available 3,000 mm long.
- **Hardie™ Plank 10 mm Internal 'W' Corner** - etch-primed aluminium, available 3,000 mm long.

4.2 Accessories specific to Hardie™ Plank Weatherboard 10 mm, which are supplied by the building contractor, are:

- **Cavity batten fixings** - 40 x 2.8 mm hot-dip galvanised flat head nails.
- **Hardie™ Plank Weatherboard 10 mm fixings** - 65 x 2.87 mm or 75 x 3.06 mm Paslode RounDrive hot-dip galvanised gun nails.

4.3 Accessories used with Hardie™ Plank Weatherboard 10 mm to a generic specification in accordance NZBC Acceptable Solution E2/AS1 or covered by a relevant and valid BRANZ Appraisal or NZ CodeMark Certification, which are supplied by the building contractor, are:

- Flexible wall underlay
- Flexible wall underlay support
- Rigid wall underlay
- Flexible sill, head and jamb flashing tape
- Joinery head flashings
- Window and door trim cavity air seal
- Flexible sealant

Paint System Specification

4.4 Paint systems are not supplied by James Hardie New Zealand Limited and have not been assessed, therefore they are outside the scope of this Appraisal.

4.5 All exposed faces, including top edges at sills and all bottom edges of Hardie™ Plank Weatherboard 10 mm and accessories must be finished with a latex exterior paint system complying with any of Parts 7, 8, 9, or 10 of AS 3730 within 90 days of installation.

Handling and Storage

5.1 Handling and storage of all materials supplied by James Hardie New Zealand Limited, whether on-site or off-site, is under the control of building contractor and shall be handled according to the requirements in the Technical Literature.

5.2 Accessories must be stored so they are kept clean, dry and undamaged. All accessories must be used within the maximum storage period recommended by the manufacturer.

Technical Literature

6.1 This Appraisal must be read in conjunction with:

- Hardie™ Plank Weatherboard 10 mm Technical Specification, dated April 2026.

6.2 All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Appraisal must be followed.

Design Information

Framing

Timber Treatment

7.1 Timber framing must be treated as required by NZBC Acceptable Solution B2/AS1.

Timber Framing

7.2 Timber framing must comply with NZS 3604 for buildings or parts of a building within the scope limitations of NZS 3604. Buildings or parts of a building outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170. Where specific design is required, the framing must be of at least equivalent stiffness to the framing provisions of NZS 3604. Studs must be at maximum 600 mm centres and nogs must be fitted flush between the studs at maximum 800 mm centres.

7.3 The maximum moisture content of timber framing must be in accordance with NZBC Acceptable Solution E2/AS1.

General

8.1 Ground clearance to finished floor levels as set out in NZS 3604 must always be adhered to.

8.2 The horizontal separation between the wall cladding and the adjacent ground must be maintained in accordance with NZS 3604.

8.3 The bottom of cladding must have separations, clearances and overlaps in accordance with NZBC Acceptable Solution E2/AS1.

8.4 All external walls shall have barriers to airflow in accordance with NZBC Acceptable Solution E2/AS1.

8.5 Penetrations through Hardie™ Plank Weatherboard 10 mm shall be in accordance with NZBC Acceptable Solution E2/AS1 and the Technical Literature.

8.6 Inter-storey junctions in claddings are required in accordance with NZBC Acceptable Solution E2/AS1 and shall be detailed in accordance with the Technical Literature.

8.7 Where Hardie™ Plank Weatherboard 10 mm abuts other cladding systems, designers must detail the junction to meet their own requirements and the performance requirements of the NZBC. The Technical Literature provides guidance for using Hardie™ Plank Weatherboard 10 mm at junctions. Details not included with the Technical Literature have not been assessed and are outside the scope of this Appraisal.

Structure

Mass

9.1 The mass of Hardie™ Plank Weatherboard 10 mm is approximately 15 kg/m^2 and is therefore considered a light wall cladding in terms of NZS 3604.

Impact Resistance

9.2 Hardie™ Plank Weatherboard 10 mm has good resistance to hard and soft body impacts likely to be encountered in normal residential use. The likelihood of impact damage to the system when used in light commercial situations should be considered at the design stage, and appropriate protection such as the installation of bollards and barriers should be considered for vulnerable areas.

Wind Zones

9.3 Hardie™ Plank Weatherboard 10 mm, when installed as a direct-fixed cladding, is suitable for use in all Wind Zones of NZS 3604 up to, and including, Very High where buildings are designed to meet the requirements of NZBC Acceptable Solution E2/AS1.

9.4 Hardie™ Plank Weatherboard 10 mm, when installed over timber cavity battens, is suitable for use in all Wind Zones of NZS 3604 up to, and including, Extra High where buildings are designed to meet the requirements of NZBC Acceptable Solution E2/AS1.

Durability

10.1 Hardie™ Plank Weatherboard 10 mm meets the performance requirements of NZBC Clause B2.3.1 (b) 15 years for the Hardie™ Plank weatherboards and flashings. Hardie™ Plank Weatherboard 10 mm must be painted within 90 days of fixing.

Serviceable Life

10.2 Coastal locations can be very corrosive to fasteners, especially locations within distances of up to 500 m from the sea including harbours, or 100 m from tidal estuaries and sheltered inlets, and otherwise as shown in NZS 3604, Figure 4.2. These coastal locations are defined in NZS 3604 as Zone D. In Zone D, Hardie™ Plank weatherboards must be fixed with stainless steel fasteners. Fasteners outside Zone D may be hot-dip galvanised steel.

10.3 Microclimatic conditions, including geothermal hot spots, industrial contamination and corrosive atmospheres, and contamination from agricultural chemicals or fertilisers can convert mildly corrosive atmosphere into aggressive environments. The use of Hardie™ Plank Weatherboard 10 mm in areas subject to microclimatic conditions requires specific design in accordance with NZS 3604 and is outside the scope of this Appraisal.

Maintenance

11.1 Regular maintenance in accordance with the Technical Literature is essential for Hardie™ Plank Weatherboard 10 mm installations to continue to meet the NZBC durability performance provision and to maximise its serviceable life.

11.2 Annual inspections must be made to ensure that all aspects of the cladding system, including the paint coating system, flashings and any sealed joints remain in a weatherproof condition. Any damaged areas or areas showing signs of deterioration which would allow water ingress must be repaired immediately. Sealant and paint coatings must be repaired in accordance with the sealant or paint coating manufacturer's instructions.

11.3 Regular cleaning (at least annually) of the paint coating surface is recommended to remove grime, dirt and organic growth and to maximise the life and appearance of the coating. Paint systems must be re-coated at approximately 7-15 yearly intervals in accordance with the paint manufacturer's instructions.

11.4 Minimum ground clearances as set out in this Appraisal must be maintained at all times during the life of the cladding. *(Note: Failure to adhere to the minimum ground clearances given in this Appraisal and the Technical Literature will adversely affect the long term durability of Hardie™ Plank Weatherboard 10 mm.)*

Prevention of Fire Occurring

12.1 Hardie™ Plank Weatherboards are considered a non-combustible material and need not be separated from heat sources such as fireplaces, heating appliances and chimneys. However, when used in conjunction with, or attached to heat sensitive materials, the heat sensitive material must be separated from heat sources such as fireplaces, heating appliances and chimneys. NZBC Acceptable Solutions C/AS1 and C/AS2 provide methods for separation and protection of combustible materials from heat sources.

Fire Affecting Areas Beyond the Fire Source

13.1 Refer to NZBC Acceptable Solutions C/AS1 and C/AS2 and NZBC Verification Method C/VM2 for fire resistance rating, control of external fire spread and vertical fire spread requirements for external walls.

Horizontal Fire Spread

13.2 Where required by NZBC Acceptable Solution C/AS1 or C/AS2, the cladding system will need to be installed over a fire resistance rated (FRR) external wall with the required FRR.

Vertical Fire Spread - Buildings 10 m in height or less

13.3 This Appraisal only covers buildings 10 m or less in height. NZBC Functional Requirement C3.2 identifies that external vertical fire spread to upper floors only needs be considered for buildings with a building height greater than 10 m. Control of external vertical fire spread is therefore outside the scope of this Appraisal.

Vertical Fire Spread - Buildings greater than 10 m in height

13.4 Hardie™ Plank Weatherboards have been classified as non-combustible when tested in accordance with AS 1530 and are therefore defined as non-combustible as per NZBC Building Product Specifications.

13.5 Cladding materials must comply with the fire performance requirements of NZBC Acceptable Solution C/AS1 or C/AS2 based on the building height, distance of the external wall to the relevant boundary and if the building is sprinklered. Hardie™ Plank Weatherboard 10 mm has not been assessed for use where these requirements apply.

External Moisture

14.1 Hardie™ Plank Weatherboard 10 mm, when installed and maintained in accordance with this Appraisal and the Technical Literature will prevent the penetration of moisture that could cause undue dampness or damage to building elements.

14.2 The drained cavity must be sealed off to restrict air movement between the drained cavity; and: floor, wall and roof framing, and attic roof space, and subfloor space as required by NZBC Acceptable Solution E2/AS1.

14.3 Construction moisture must be managed in accordance with NZBC Acceptable Solution E2/AS1 to ensure construction moisture is not permitted to damage building elements.

14.4 The details given in the Technical Literature for weather sealing are based on the design principle of having a first and second line of defence against moisture entry for all joints, penetrations and junctions. The ingress of moisture must be excluded by detailing joinery and wall interfaces as shown in the Technical Literature. Weathertightness details that are developed by the designer are outside the scope of this Appraisal and are the responsibility of the designer for compliance with the NZBC.

Internal Moisture

Water Vapour

15.1 Hardie™ Plank Weatherboard 10 mm is not a barrier to the passage of water vapour, and when installed in accordance with this Appraisal and the Technical Literature, will not create or increase the risk of moisture damage resulting from condensation.

15.2 Buildings must be constructed with an adequate combination of thermal resistance and ventilation, and space temperature must be provided to all habitable spaces, bathrooms, laundries and other spaces where moisture may be generated or may accumulate.

Installation Information

General

16.1 Installation of Hardie™ Plank Weatherboard 10 mm must be in accordance with the instructions given in this Appraisal and the Technical Literature.

Installation Skill Level Requirement

17.1 Where the installation is Restricted Building Work (RBW) the installation must be completed by, or under the supervision of, a Licensed Building Practitioner with the relevant Licence Class. All building work must be undertaken by competent and experienced tradespeople conversant with Hardie™ Plank Weatherboard 10 mm.

System Installation

Building Underlay and Flexible Sill and Jamb Tape Installation

18.1 The selected wall underlay and flexible flashing tape must be installed in accordance with the underlay and tape manufacturer's instructions, prior to the installation of the cavity battens and Hardie™ Plank Weatherboard 10 mm. Flexible wall underlay must be installed horizontally and be continuous around corners. Underlay must be lapped 75 mm minimum at horizontal joints and 150 mm minimum over studs at vertical joints. Generic rigid sheathing materials must be installed in accordance with NZBC Acceptable Solution E2/AS1 and be overlaid with a flexible wall underlay. Proprietary systems shall be installed in accordance with the manufacturer's instructions. Particular attention must be paid to the installation of the wall underlay and flexible flashing tapes around window and door openings and penetrations to ensure a continuous seal is achieved and all exposed wall framing in the opening is protected.

18.2 Where studs are at greater than 450 mm centres and a flexible wall underlay is being used, a flexible wall underlay restraint in accordance with the Appraisal Technical Specification must be installed over the underlay to prevent the insulation from bulging the building underlay into the cavity.

Cavity Battens

18.3 Cavity battens must be installed over the building underlay to the wall framing at maximum 600 mm centres. The battens must be fixed in place with 40 x 2.8 mm hot-dip galvanised flat head nails at maximum 800 mm centres.

Joinery Installation

18.4 Joinery must be installed in accordance with the appraised Technical Literature and any Technical Literature of the joinery manufacturer. The joinery must be installed plumb, level and fixed in accordance with NZBC Acceptable Solution E2/AS1 or the joinery manufacturers Technical Literature.

Hardie™ Plank Weatherboard Installation

18.5 Hardie™ Plank Weatherboards may be cut on-site by power saw. Holes and cut-outs may be formed by drilling a number of holes around the perimeter of the opening required and tapping out the centre with a hammer, or by using a hole saw.

18.6 Hardie™ Plank Weatherboards must be dry prior to installation. Before the weatherboards are installed, cut ends exposed to the exterior such as at aluminium box corners or internal corners must be primed to reduce the absorbency of the fibre cement.

18.7 Hardie™ Plank Weatherboards must be installed starting at the bottom of the wall. A cant strip (H3.1 treated timber or fibre cement) must be fixed behind the bottom course of weatherboards to ensure the weatherboards are set at the correct angle. The cant strip must be continuous around the perimeter of the building. The bottom course of weatherboards must overhang the bottom plate by a minimum of 50 mm.

18.8 Before the weatherboards are installed, the corner detail must be prepared to suit the selected option, e.g. external box corner, corner soaker. The necessary flashings, including window flashings, must be installed before commencing weatherboard fixing.

18.9 The first course of weatherboards must be full length, i.e. 4,200 mm and commence from an external corner. Jointing of Hardie™ Plank Weatherboards is made off the stud using a back soaker. The joints may be located centrally between the studs, but must be no closer than 150 mm to the edge of a stud. Subsequent courses of weatherboards must be installed so that the joints are staggered by 600 mm minimum from joints in the previous course.

18.10 Hardie™ Plank Weatherboards must have a minimum lap of 30 mm. Where possible a near to full board will finish under and over windows and doors and at the top of the wall. A storey rod can be used to accurately position weatherboard courses.

18.11 Hardie™ Plank Weatherboards must be conceal fixed to each stud in accordance with the Technical Literature.

Finishing

18.12 The paint coating manufacturer's instructions must be followed at all times for application of the paint finish. Hardie™ Plank Weatherboards must be clean and dry before commencing painting.

Inspections

18.13 The Technical Literature must be referred to during the inspection of Hardie™ Plank Weatherboard 10 mm installations.

Health and Safety

19.1 Protective equipment must be worn and used as required by the Technical Literature and the manufacturer's instructions.

Basis of Appraisal

The following is a summary of the technical investigations carried out:

Tests

20.1 The following testing has been completed by BRANZ:

- Cone calorimeter testing to determine the peak rate of heat release and total heat release of Hardie™ Plank Weatherboards was completed by BRANZ. The testing was carried out in accordance with AS/NZS 3837.

20.2 Hardie™ Plank Weatherboards have been tested by a National Association of Testing Authorities (NATA) accredited laboratory in accordance with AS/NZS 2908.2. The results have been reviewed by BRANZ and found to be satisfactory.

Other Investigations

21.1 Structural and durability opinions have been provided by BRANZ technical experts.

21.2 A BRANZ expert opinion on NZBC Clause E2 code compliance for Hardie™ Plank Weatherboard 10 mm including evaluation of all details within the scope of this Appraisal has been completed.

21.3 Site inspections have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.

21.4 The Technical Literature for Hardie™ Plank Weatherboard 10 mm has been examined by BRANZ and found to be satisfactory.

Quality

22.1 The manufacture of Hardie™ Plank Weatherboard 10 mm has been examined by BRANZ, including methods adopted for quality control. Details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.

22.2 The quality of materials, components and accessories supplied by James Hardie New Zealand Limited is the responsibility of James Hardie New Zealand Limited.

22.3 Quality of installation on-site of components and accessories supplied by James Hardie New Zealand Limited is the responsibility of the installer.

22.4 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and joinery, wall underlays, flashing tapes, air seals and cavity battens in accordance with the instructions of James Hardie New Zealand Limited.

22.5 Sub-trades are responsible for installation of penetrations, flashings etc. that are relevant to their trade in accordance with the Hardie™ Plank Weatherboard 10 mm Technical Literature.

22.6 Building owners are responsible for the maintenance of Hardie™ Plank Weatherboard 10 mm in accordance with the instructions of James Hardie New Zealand Limited.

Sources of Information

- AS 3730 Guide to the properties of paints for buildings.
- AS/NZS 1170:2002 Structural design actions.
- AS/NZS 2908.2:2000 Cellulose-cement products - Flat sheet.
- AS/NZS 3837:1998 Method of test for heat and smoke release rates for materials and products using an oxygen consumption calorimeter.
- NZS 3603:1993 Timber structures standard.
- NZS 3604:1999 Timber-framed buildings.
- Ministry of Business, Innovation and Employment Record of amendments - Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

BRANZ

In the opinion of BRANZ, Hardie™ Plank Weatherboard 10 mm is fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided it is used, designed, installed and maintained as set out in this Appraisal.

The Appraisal is issued only to James Hardie New Zealand Limited, and is valid until further notice, subject to the Conditions of Appraisal.

Conditions of Appraisal

1. This Appraisal:
   a) relates only to the product as described herein;
   b) must be read, considered and used in full together with the Technical Literature;
   c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
   d) is copyright of BRANZ.
2. James Hardie New Zealand Limited:
   a) continues to have the product reviewed by BRANZ;
   b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
   c) abides by the BRANZ Appraisals Services Terms and Conditions;
   d) warrants that the product and the manufacturing process for the product are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ pursuant to BRANZ's Appraisal of the product.
3. BRANZ makes no representation or warranty as to:
   a) the nature of individual examples of, batches of, or individual installations of the product, including methods and quality of work;
   b) the presence or absence of any patent or similar rights subsisting in the product or any other product;
   c) any guarantee or warranty offered by James Hardie New Zealand Limited.
4. Any reference in this Appraisal to any other publication shall be read as a reference to the version of the publication specified in this Appraisal.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to James Hardie New Zealand Limited or any third party.

For BRANZ

Claire Falck
Chief Executive

Date of Issue:
16 April 2026