BRANZ Appraised
Appraisal No. 611 [2020]

JAMES HARDIE RIGID AIR BARRIERS

Appraisal No. 611 (2020)

This Appraisal replaces BRANZ Appraisal No. 611 (2011)

Amended 07 December 2020

BRANZ Appraisals

Technical Assessments of products for building and construction.

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Product

1.1 James Hardie Rigid Air Barriers are a range of rigid wall underlay materials including RAB™ Board and HomeRAB™ Pre-Cladding. They are sealed fibre cement sheets designed for use as rigid wall underlay behind wall cladding systems. HomeRAB™ Pre-Cladding and RAB™ Board are manufactured using a medium density fibre cement formulation.

Scope

2.1 HomeRAB™ Pre-Cladding has been appraised for use as a rigid wall underlay and temporary weather-protecting sheathing on timber-framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and,
- with absorbent wall claddings directly fixed to framing; and,
- with non-absorbent wall claddings directly fixed to framing with a flexible wall underlay over the HomeRAB™ Pre-Cladding; and,
- with absorbent and non-absorbent wall claddings installed over a nominal 20 mm drained cavity; and,
- with masonry veneer in accordance with NZBC Acceptable Solution E2/AS1; and,
- situated in NZS 3604 Wind Zones up to, and including, Very High.

2.2 RAB™ Board has been appraised for use as a rigid wall underlay and temporary weather-protecting sheathing on timber-framed buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and,
- constructed with timber framing, or timber frame infill complying with the NZBC; and,
- with absorbent wall claddings directly fixed to framing; and,
- with non-absorbent wall claddings directly fixed to framing with a flexible wall underlay over the RAB™ Board; and,
- with absorbent and non-absorbent wall claddings installed over an nominal 20 mm drained cavity; and,
- with masonry veneer in accordance with NZBC Acceptable Solution E2/AS1; and,
- when used in conjunction with wall cladding systems suitable for use with maximum wind pressures for structural and weathertightness design of 1 kPa Serviceability Limit State (SLS) and 1.5 kPa Ultimate Limit State (ULS) where studs are at maximum 600 mm centres, and 3 kPa SLS and 4.5 kPa ULS where studs are at maximum 400 mm centres.

(Note: James Hardie Rigid Air Barriers can be used to provide structural bracing. RAB™ Board can also be used in fire resistance rated construction. These aspects have not been assessed by this Appraisal and are outside its scope.)

2.3 RAB™ Board has also been appraised for use as a rigid wall underlay and temporary weather-protecting sheathing on timber-framed buildings within the following scope:

- buildings with a building height not exceeding 25 m; and,
- constructed with timber framing complying with the NZBC; and,
- with inter-storey deflections designed for up to height/180 of horizontal in-plane movement during seismic SLS events [based on a 3 m inter-storey height]; and,
- with absorbent and non-absorbent wall claddings installed over a nominal 20 mm drained cavity; and,
- when used in conjunction with either James Hardie or other cladding systems suitable for use with maximum wind pressures for structural and weathertightness design of 1 kPa SLS and 1.5 kPa ULS where studs are at maximum 600 mm centres, and 3 kPa SLS and 4.5 kPa ULS where studs are at maximum 400 mm centres.

Building Regulations

New Zealand Building Code (NZBC)

3.1 **In the opinion of BRANZ, James Hardie Rigid Air Barriers, if used, designed, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet, or contribute to meeting the following provisions of the NZBC:**

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. James Hardie Rigid Air Barriers meet the requirements for loads arising from earthquake and wind [i.e. B1.3.3 (f) and (h)]. See Paragraphs 8.1-8.7.

Clause B2 DURABILITY: Performance B2.3.1 (a), not less than 50 years, B2.3.1 (b), 15 years and B2.3.2. James Hardie Rigid Air Barriers meet these requirements. See Paragraphs 9.1-9.3.

Clause C3 FIRE AFFECTING AREAS BEYOND THE SOURCE: Performance C3.5 and C3.7. When used as part of an external wall system, James Hardie Rigid Air Barriers will contribute to meeting these requirements. See Paragraphs 12.1-12.3.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. When used as part of the cladding system, James Hardie Rigid Air Barriers will contribute to meeting this requirement. See Paragraphs 13.1-13.3.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. James Hardie Rigid Air Barriers meet this requirement.

Technical Specification

4.1 System components and accessories for James Hardie Rigid Air Barriers, which are supplied by James Hardie New Zealand Limited are:

- **HomeRAB™ Pre-Cladding** is a 4.5 mm thick fibre cement sheet, manufactured from a cellulose fibre cement formulation. It is produced in sheet material form with 'HomeRAB' printed on the front face. The sheets are formed, cut to length, and then cured by high pressure autoclaving. The sheet is coated on the front face and four edges with a green tinted water repellent sealer. HomeRAB™ Pre-Cladding is available in sizes of 1,200 mm wide and 2,450, 2,750 and 3,000 mm long. It is manufactured to conform to the requirements of AS/NZS 2908.2.
- **RAB™ Board** are 6 mm or 9 mm thick fibre cement sheets, manufactured from a cellulose fibre cement formulation. It is produced in sheet material form. The sheets are formed, cut to length, and then cured by high pressure autoclaving. The sheet is coated on the front face and four edges with a green tinted water repellent sealer. RAB™ Board is available in sizes of 1,200 mm wide and 2,450, 2,750 and 3,000 mm long. It is manufactured to conform to the requirements of AS/NZS 2908.2 and is classified as a Type A, Category 2 fibre cement product.

Accessories

- **HomeRAB™ Pre-Cladding and RAB™ Board horizontal flashings** - uPVC, available in 3,000 mm lengths.

4.2 System components and accessories for James Hardie Rigid Air Barriers, which are supplied by the building contractor are:

- **Joint sealing tape and flexible sill and jamb flashing tape system** - 3M™ All Weather Flashing Tape 8067 (3M New Zealand Ltd), SUPER-STICK Flexible Flashing Tape (Marshall Innovations Ltd), Thermakraft Premium Jointing Tape (Thermakraft NZ Ltd) and Thermaflash (Thermakraft NZ Ltd).
- **HomeRAB™ Pre-Cladding and RAB™ Board 6 mm sheet fixing** – gun-driven 40 mm or 50 x 2.8 mm hot-dip galvanised or ring shank stainless steel round head nails, or hand-driven 40 x 2.8 mm hot-dip galvanised or ring shank stainless steel HardieFlex™ nails.
- **RAB™ Board 9 mm sheet fixing** – 50 x 2.8 mm hot-dip galvanised or stainless steel round drive nails.

(Note: Hot-dip galvanising must comply with AS/NZS 4680 and stainless steel must be Grade 304 or 316.)

- **Horizontal Z Flashing** - uPVC, galvanised steel or aluminium.

Handling and Storage

5.1 Handling and storage of all materials supplied by James Hardie New Zealand Limited or the building contractor, whether on-site or off-site, is under the control of the building contractor. James Hardie Rigid Air Barriers must be stacked flat, off the ground and supported on a level platform. They must be kept dry at all times either by storing under cover or providing waterproof covers to the stack. Care must be taken to avoid damage to edges, ends and surfaces. The sheathing must always be carried on edge. uPVC flashings and jointers must be protected from direct sunlight and physical damage, and should be stored flat and under cover.

5.2 Other accessories must be stored so they are kept clean, dry and undamaged.

Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for James Hardie Rigid Air Barriers. The Technical Literature must be read in conjunction with this Appraisal. 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 wall framing behind James Hardie Rigid Air Barriers must be treated as required by NZBC Acceptable Solution B2/AS1.

Timber Framing

7.2 For HomeRAB™ Pre-Cladding installations, timber framing must comply with NZS 3604 for buildings or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings 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. In all cases studs must be at maximum 600 mm centres. Dwangs must be fitted flush between the studs at maximum 1,200 mm centres. *(Note: The timber framing must also be suitable for the selected wall cladding. Refer to the selected cladding system's Technical Literature for specific framing requirements.)*

7.3 For RAB™ Board installations, timber framing must comply with NZS 3604 for buildings or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170 considering local factors. In all cases studs must be at maximum 600 mm centres for buildings situated in wind pressures up to 1.5 kPa ULS, and at maximum 400 mm centres for buildings situated in wind pressures greater than 1.5 kPa ULS up to 4.5 kPa ULS. Dwangs must be fitted flush between the studs at maximum 1,200 mm centres. *[Note: The timber framing must also be suitable for the selected wall cladding. Refer to the selected cladding system's Technical Literature for specific framing requirements.]*

7.4 Timber wall framing where James Hardie Rigid Air Barriers are joined must be 45 mm minimum finished width.

James Hardie Rigid Air Barrier Set Out

7.5 James Hardie Rigid Air Barriers must be installed vertically. At the base of the wall, the sheet must hang below the bottom plate a minimum of 15 mm. Sheet overhang where used with timber floors must hang below timber subfloor members a minimum of 15 mm, up to a maximum of 40 mm.

7.6 In all cases, HomeRAB™ Pre-Cladding and RAB™ Board sheet edges must be supported and fixed to the wall framing.

General

7.7 James Hardie Rigid Air Barriers are intended for use as rigid wall underlays fixed over timber-framed walls in order to support wind pressures, and to act as a secondary barrier to wind-driven rain.

Temporary Weather Protection

7.8 Commencing from installation, James Hardie Rigid Air Barriers must not be exposed to the weather for more than 180 days.

7.9 James Hardie Rigid Air Barriers may be used as a temporary weather protecting sheathing to allow the insulation and internal lining of the building to proceed before the wall cladding is installed. To achieve temporary weathertightness, all joints, internal and external corners of the James Hardie Rigid Air Barriers must be sealed, the roof cladding and soffit linings must be installed, the flexible sill and jamb flashing tape system must be installed around the window and door openings, and the window and door joinery must be installed complete with head flashings and air seals. The timber wall framing moisture content must not exceed that specified by the internal lining system supplier at the time of the insulation installation and internal lining application.

7.10 James Hardie Rigid Air Barriers are suitable for use under wall claddings as a rigid wall underlay as called up in NZBC Acceptable Solution E2/AS1, Table 23, except that non-absorbent claddings must not be installed directly over the James Hardie Rigid Air Barriers.

Table 1: NZBC E2/AS1 Table 23 Requirements

NZBC E2/AS1 Table 23 Rigid Wall Underlay Properties	Property Performance Requirement	James Hardie Rigid Air Barriers Actual Property Performance
Vapour Resistance	< 7 MN s/g	0.6 MN s/g
Water Resistance	> 20 mm	Pass

Structure

Mass

8.1 The mass of HomeRAB™ Pre-Cladding is approximately 6.5 kg/m^2 at equilibrium moisture content. The mass of 6 mm RAB™ Board is approximately 8.6 kg/m^2 at equilibrium moisture content. The mass of 9 mm RAB™ Board is approximately 13 kg/m^2 at equilibrium moisture content. This mass must be added to the selected wall cladding system mass when determining the overall wall cladding mass in terms of NZS 3604.

Wind Zones

8.2 HomeRAB™ Pre-Cladding is suitable for use in all Wind Zones of NZS 3604, up to, and including, Very High. The sheets must be fixed at centres as specified in Table 2. The fixings must be positioned a minimum of 12 mm from all sheet edges, and a minimum of 50 mm horizontally and 75 mm vertically from sheet corners. The fastener heads must finish flush with the sheet surface.

Table 2: HomeRAB™

NZS 3604 Wind Zone	Framing Set Out	HomeRAB™ Pre-Cladding Nailing Centres to Studs, Plates and Dwangs
Low, Medium and High	Studs at 600 mm centres maximum and dwangs at 800 mm centres	200 mm
Very High	Studs at 400 mm centres maximum and dwangs at 800 mm centres	200 mm

8.3 RAB™ Board is suitable for use in design wind pressures up to and including 4.5 kPa ULS when used in conjunction with wall cladding systems able to resist the same face load pressures. The sheets must be fixed at centres as specified in Table 3. The fixings must be positioned a minimum of 12 mm from all sheet edges, and a minimum of 50 mm horizontally and 75 mm vertically from sheet corners. The fastener heads must finish flush with the sheet surface.

Table 3: RAB™ Board Fixing Centres

Wind Pressure	Framing Set Out	RAB™ Board Nailing Centres to Studs, Plates and Dwangs
≤ 1.5 kPa ULS (NZS 3604 Wind Zone Medium)	Studs at 600 mm centres and dwangs at 1,200 mm	200 mm
> 1.5 kPa ULS and ≤ 4.5 kPa ULS (NZS 3604 Wind Zone High to Extra High)	Studs at 400 mm centres and dwangs at 1,200 mm	200 mm

Top Plate Hold Down Connections

8.4 James Hardie Rigid Air Barriers can be used as an alternative to wire dog connectors to achieve a top plate connection capacity of 4.7 kN in accordance with Fixing Type B of NZS 3604 Table 8.18. To achieve the connection strength, the HomeRAB™ Pre-Cladding and RAB™ Board sheets must be fixed along the top edge into the top plate with 50 x 2.8 mm hot-dip galvanised or ring shank stainless steel round head nails, or hand-driven 40 x 2.8 mm hot-dip galvanised or ring shank stainless steel HardieFlex™ nails at 75 mm centres. The fixings must be positioned a minimum of 20 mm from the sheet edge. The fastener heads must finish flush with the sheet surface. The remainder of the sheet is fixed in accordance with Table 2 or Table 3.

Wall Cladding Fixing

8.5 The length of the selected wall cladding fixing must be increased by a minimum of the thickness of the James Hardie Rigid Air Barrier to maintain the face load strength of the wall cladding system.

Bracing

8.6 HomeRAB™ Pre-Cladding and RAB™ Board can be used to provide structural bracing. This has not been assessed by this Appraisal and is outside its scope.

Inter-storey Deflection

8.7 RAB™ Board is suitable to accommodate inter-storey deflections. When installed in accordance with the detail contained in the Technical Literature, RAB™ Board is capable to withstanding SLS deflections up to height/180. For structures where greater inter-storey deflections are expected, a deflection head should be incorporated into design as detailed in the Technical Literature in conjunction with specific engineering design.

Durability

9.1 James Hardie Rigid Air Barriers meet code compliance with NZBC Clause B2.3.1 (a), not less than 50 years when used where the cladding durability requirement or expected serviceable life is not less than 50 years, e.g. behind masonry veneer, and code compliance with NZBC Clause B2.3.1 (b), 15 years where the cladding durability requirement is 15 years.

Serviceable Life

9.2 Provided they are not exposed to the weather or ultraviolet (UV) light for a total of more than 180 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather resistant, James Hardie Rigid Air Barriers are expected to have a serviceable life of at least 50 years.

9.3 Areas of geothermal activity and coastal locations can be very corrosive to fasteners, especially coastal locations within distances of up to 500 metres of the sea including harbours, or 100 metres from tidal estuaries and sheltered inlets in some instances. These coastal locations are defined in NZS 3604 as Zone D. For the James Hardie Rigid Air Barriers when used as a rigid sheathing in Zone D they must be fixed with stainless steel fasteners. Fasteners outside Zone D may be hot-dip galvanised steel.

Maintenance

10.1 James Hardie Rigid Air Barriers will not normally require maintenance. However, if damage occurs to the cladding or lining protecting the sheathing or to the sheathing itself, the repairs or replacement must be carried out to ensure the integrity of the rigid wall underlay.

Prevention of Fire Occurring

11.1 James Hardie Rigid Air Barrier Sheets are considered a non-combustible material and need not be separated from heat sources such as fireplaces, heating appliances, flues 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. Part 7 of NZBC Acceptable Solution C/AS1, C/AS2 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

External Vertical Fire Spread

12.1 James Hardie RAB™ Board has been tested to NFPA 285 and can be used to meet the requirements of NZBC Clause C3.5 and C3.7 with regard to external vertical fire spread when external walls are constructed to the following specifications:

- 6 or 9 mm RAB™ Board installed in accordance with the technical literature; and,
- A cladding system comprised entirely of non-combustible components over James Hardie CLD fibre cement cavity battens; and,
- Pink Batts R2.2 Glasswool or insulation as specified by James Hardie fitted within the framing cavity throughout the external façade.

[Note: NZBC Clause C3.5 applies only to buildings where the building height exceeds 10 m. In these instances, the compliance of the selected cladding system with all aspects of the Building Code must be addressed by the designer.]

[Note: Alternative insulation types specified by James Hardie have not been assessed by BRANZ and is outside the scope of this Appraisal.]

12.2 James Hardie RAB™ Board with 20 x 40 mm timber cavity battens and James Hardie Axon Panel cladding system has been tested to NFPA 285 and is suitable to meet the requirements of NZBC Clause C3.5 with regard to external vertical fire spread.

- [Note: James Hardie Axon Panel cladding system has not been assessed by BRANZ and is outside the scope of this Appraisal.]

12.3 James Hardie RAB™ Board with 20 x 40 mm timber cavity battens and James Hardie Axon Panel cladding system has been tested to NFPA 285 and is therefore considered by NZBC Acceptable Solution C/AS2 to meet the requirements of NZBC Clause C3.7 with regard to external fire spread.

- [Note: James Hardie Axon Panel cladding system has not been assessed by BRANZ and is outside the scope of this Appraisal.]

External Moisture

13.1 James Hardie Rigid Air Barriers must be used behind claddings that meet the performance requirements of NZBC Clause E2.

13.2 James Hardie Rigid Air Barriers meet the performance requirements for a rigid wall underlay as specified in NZBC Acceptable Solution E2/AS1, Table 23, except that non-absorbent claddings must not be installed directly over the James Hardie Rigid Air Barriers.

13.3 James Hardie Rigid Air Barriers, when installed in accordance with the Technical Literature and this Appraisal, will assist in the total cladding system's compliance with NZBC Clause E2.

Installation Information

Installation Skill Level Requirements

14.1 All design and building work must be carried out in accordance with the James Hardie Rigid Air Barriers Technical Literature and this Appraisal by competent and experienced tradespersons conversant with rigid air barriers. Where the work involves Restricted Building Work (RBW) this must be completed by, or under the supervision of, a Licensed Building Practitioner (LBP) with the relevant License class.

System Installation

15.1 James Hardie Rigid Air Barriers may be cut by scoring and snapping, hand guillotine, hand or 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.

15.2 Sheets must be dry prior to installation. Cut edges that are left exposed must be sealed prior to installation.

15.3 Prior to fixing James Hardie Rigid Air Barriers, a check must be made to ensure all sheet edges will be supported by framing. At the base of the wall, the sheet must hang below the bottom plate by a minimum of 15 mm.

15.4 James Hardie Rigid Air Barriers must be fixed to the timber framing with 40 mm or 50 x 2.8 mm hot-dip galvanised or ring shank stainless steel round head nails, or hand-driven 40 x 2.8 mm hot-dip galvanised or ring shank stainless steel HardieFlex™ nails. Refer to Table 2, Table 3 and Paragraph 8.4 for fixing centres and Paragraph 9.3 for material selection.

15.5 At vertical joints, James Hardie Rigid Air Barriers must be installed with a 2-3 mm gap between the sheet edges and must be supported over vertical framing. At horizontal joints between floor levels, James Hardie Rigid Air Barriers must be installed with a minimum 6 mm gap between the sheet edges and must be supported over horizontal framing. At inter-storey floor levels, James Hardie Rigid Air Barriers must not be fixed to inter-storey joists or blocking and must have a minimum 15 mm gap between the sheet edges at this point to allow for shrinkage of the framing. All horizontal joints must be flashed with a uPVC flashing.

15.6 Any damaged areas, such as holes or gaps around service penetrations, must be repaired. Damaged areas can be repaired by covering with joint sealing tape.

Joint Sealing Tape Installation

15.7 All vertical sheet joints, internal and external corners must be covered with 3M™ All Weather Flashing Tape 8067, SUPER-STICK flexible flashing tape or Thermakraft Premium Jointing Tape. The manufacturer's instructions regarding the application temperatures for the joint sealing tapes, and the requirements for the use of adhesive primer must be followed.

15.8 James Hardie Rigid Air Barriers must be cleaned of dust and other surface contaminants prior to the application of the joint sealing tape to ensure adequate adhesion is achieved.

Flexible Sill and Jamb Tape Installation

15.9 The selected flexible sill and jamb tape flashing system must be installed in accordance with the tape manufacturer's instructions, except where varied by the James Hardie Rigid Air Barriers Technical Literature. Particular attention must be paid to the installation of the sill and jamb tapes around window and door joinery openings to ensure all exposed timber wall framing in the opening is protected.

Inspections

15.10 The Technical Literature must be referred to during the inspection of James Hardie Rigid Air Barriers installations. When the construction sequence is followed in accordance with the Technical Literature, the Building Consent Authority (BCA) inspections for pre-cladding and pre-lining may be combined.

Health and Safety

16.1 Cutting of James Hardie Rigid Air Barriers must be carried out in well ventilated areas, and a dust mask and eye protection must be worn.

16.2 When power tools are used for cutting, grinding or forming holes, health and safety measures as set out in the Technical Literature must be undertaken because of the amount of dust generated.

16.3 Safe use and handling procedures for James Hardie Rigid Air Barriers and the components that make up the cladding system are provided in the relevant manufacturer's Technical Literature.

Basis of Appraisal

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

Tests

17.1 Testing has been carried out by James Hardie Building Products to determine the face load pressure resistance of HomeRAB™ Pre-Cladding. Testing has also been carried out by James Hardie Building Products to determine the face load pressure resistance of RAB™ Board in conjunction with Titan Facade Panels. The testing was completed in a National Association of Testing Authorities (NATA) Accredited laboratory and was observed by BRANZ. The test method and results have been reviewed by BRANZ and found to be satisfactory.

17.2 The resistance of James Hardie Rigid Air Barriers to water vapour transmission in accordance with AS/NZS 4200.1 and resistance to water penetration in accordance with AS/NZS 4201.4 has been completed by BRANZ.

17.3 Testing of specimens assembled containing James Hardie Rigid Air Barriers has been carried out to NFPA 285 by Intertek Group plc.

Other Investigations

18.1 Structural and durability opinions were given by BRANZ technical experts.

18.2 BRANZ expert opinion on NZBC E2 code compliance for James Hardie Rigid Air Barriers was based on evaluation of all details within the scope and as stated within this Appraisal. The details contained within the Technical Literature have been reviewed, and an opinion has been given by BRANZ technical experts that the system will meet the performance levels of Acceptable Solution E2/AS1 for rigid wall underlays.

18.3 BRANZ expert opinion on NZBC External Fire Spread compliance for James Hardie Rigid Air Barriers was based on evaluation of cladding types referenced in this Appraisal against the results of NFPA 285 testing

18.4 The non-combustibility of James Hardie Rigid Air Barriers have been assessed by BRANZ technical experts.

18.5 The Technical Literature for James Hardie Rigid Air Barriers has been examined by BRANZ and found to be satisfactory.

Quality

19.1 The manufacture of James Hardie Rigid Air Barriers has been examined by BRANZ, including methods adopted for quality control. Details regarding the composition of the materials used were obtained by BRANZ and found to be satisfactory.

19.2 The quality of materials, components and accessories supplied by James Hardie New Zealand Limited is the responsibility of James Hardie New Zealand Limited. The quality control system of James Hardie New Zealand Limited has been assessed and registered as meeting the requirements of ISO 9001: 2015.

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

19.4 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of the framing systems, uPVC flashings, joint seal tapes and flexible sill and jamb tape systems in accordance with the instructions of James Hardie New Zealand Limited.

Sources of Information

- AS/NZS 1170: 2002 Structural design action - General principles.
- AS/NZS 2908.2: 2000 Cellulose-cement products - Flat sheet.
- AS/NZS 4200.1: 1994 Pliable building membranes and underlays - materials.
- AS/NZS 4201.4: 1994 Pliable building membranes and underlays - Methods of test - Resistance to water penetration.
- NFPA 285: 2012 Standard method of test for the evaluation of flammability characteristics of exterior non-loadbearing wall assemblies containing components using the intermediate scale, multi-storey test apparatus.
- NZS 3602: 2003 Timber and wood-based products for use in building.
- NZS 3603: 1993 Timber Structures Standard.
- NZS 3604: 2011 Timber-framed buildings.
- Ministry of Business, Innovation and Employment Record of amendments – Acceptable Solutions, Verification Methods and handbooks.
- The Building Regulations 1992.

Amendments

Amendment No.1, dated 07 December 2020

This Appraisal has been amended to add Thermaflash and Thermakraft Premium Jointing Tape.

In the opinion of BRANZ, James Hardie Rigid Air Barriers are fit for purpose and will comply with the Building Code to the extent specified in this Appraisal provided they are 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 workmanship;
   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

Chelydra Percy
Chief Executive

Date of Issue:
XX Month 2020