

Appraisal No. 721 (2019)

## INNOVA™ DURABARRIER™ RIGID SHEATHING/AIR BARRIER

## Appraisal No. 721 (2019)

This Appraisal replaces BRANZ Appraisal No. 721 (2011) Amended 31 October 2024

#### **BRANZ Appraisals**

Technical Assessments of products for building and construction.



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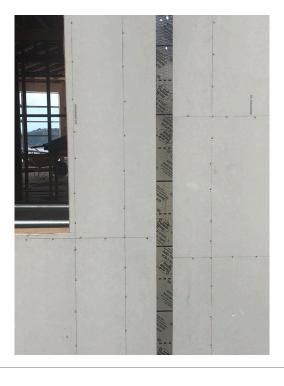
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#### **BRANZ**

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## **Product**

1.1 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is a sealed fibre cement sheet designed for use as a rigid wall underlay behind wall cladding systems and as a bracing system to resist wind and earthquake loads on timber-framed buildings.

## Scope

- 2.1 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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; 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier; and,
  - with absorbent and non-absorbent wall claddings installed over an 18 mm minimum 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, Extra High.
- 2.2 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier has also been appraised for use as a rigid wall underlay and temporary weather-protecting sheathing for buildings within the following scope:
  - the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
  - · constructed with timber framing complying with the NZBC; and,
  - situated in specific design wind pressures up to a maximum design differential ultimate limit state (ULS) of 2.5 kPa.
- 2.3 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier has also been appraised for use as wall bracing systems for timber-framed buildings within the scope of NZS 3604.

# Building Regulations

## New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, Innova™ Durabarrier™ Rigid Sheathing/Air Barrier, if designed, used, 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. Innova™ Durabarrier™ Rigid Sheathing/Air Barrier meets 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. Innova™ Durabarrier™ Rigid Sheathing/Air Barrier meets these requirements. See Paragraphs 9.1-9.3.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.2. When used as part of the cladding system, Innova™ Durabarrier™ Rigid Sheathing/Air Barrier contributes to meeting this requirement. See Paragraphs 13.1 and 13.2.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. Innova™ Durabarrier™ Rigid Sheathing/Air Barrier meets this requirement.

3.2 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier can be used to satisfy the bracing demand requirements of Section 5 of NZS 3604, which is an Acceptable Solution for compliance with NZBC Clause B1.

## **Technical Specification**

4.1 System components and accessories for Innova™ Durabarrier™ Rigid Sheathing/Air Barrier, which are supplied by Etex Australia Pty Ltd are:

## Innova™ Durabarrier™ Rigid Sheathing/Air Barrier

- Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is available as 4.5 and 6 mm thick fibre
  cement sheets, manufactured from a cellulose fibre cement formulation. It is produced in sheet
  material form with 'Durabarrier™' 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 clear tinted water-repellent sealer.
- Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is available in sheet widths of 1,200 mm wide.
   The 4.5 mm thick product is available in lengths of 2,450 and 2,750 mm. The 6 mm thick product is available in 2,450 and 3,000 mm lengths. It is manufactured to conform to the requirements of AS/NZS 2908.2.

#### **Accessories**

- Aluminium Z-flashing 3 m long.
- Innova™ Edge Sealer acrylic sealer supplied in a 400 g can to seal cut edges of Innova™
   Durabarrier™ Rigid Sheathing/Air Barrier.
- 4.2 System components and accessories for Innova™ Durabarrier™ Rigid Sheathing/Air Barrier, which are supplied by the building contractor are:
  - Innova™ Durabarrier™ sheet fixings 40 x 2.8 mm hot-dip galvanised fibre cement nails, or 40 x 2.8 mm stainless steel ring shanked fibre cement nails, or 50 x 2.8 mm coil gun nails.
  - Flexible sill and jamb flashing tape Marshall Innovations SUPER-STICK Flexible Flashing Tape or 3M All Weather Flashing Tape 8067.
  - **Joint sealing tape** minimum 75 mm wide Marshall Innovations SUPER-STICK Flexible Flashing Tape or 3M All Weather Flashing Tape 8067.
  - Horizontal Z- flashing uPVC, galvanised steel or aluminium.
  - Bracing panel end straps 25 x 0.9 mm galvanised or stainless steel strap.
  - End strap fixings 30 x 2.5 mm hot-dip galvanised or stainless steel flat head nails.



- GIB® Handibrac® a one-piece, 2 mm thick, galvanised steel angle bracket approximately 95 mm high, 65 mm long and 54 mm wide. The bracket is supplied with five Type 17 screws 14 q x 35 mm.
- Concrete floor end-stud hold-down M12 x 150 mm minimum hot-dip galvanised bolts or proprietary anchor with a minimum characteristic pull-out strength of 15 kN, with a 50 x 50 x 3 mm hot-dip galvanised washer, or proprietary anchors with a minimum characteristic pull-out strength of 15 kN.

## Handling and Storage

- 5.1 Handling and storage of all materials supplied by Etex Australia Pty Ltd or the building contractor, whether on-site or off-site, is under the control of the building contractor. Innova™ Durabarrier™ Rigid Sheathing/Air Barrier sheets 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 lining must always be carried on edge. uPVC flashings 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

- This Appraisal must be read in conjunction with:
  - Durabarrier™ Rigid Sheathing/Air Barrier Product Brochure, dated August 2024.
  - Durabarrier™ Architectural Drawings DB01 to DB22, all dated August 2018.
- 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 wall framing behind Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 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 for buildings situated in all NZS 3604 defined Wind Zones and up to a design differential ULS wind pressure of 2.5 kPa. Dwangs must be fitted flush between the studs at maximum 800 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 Timber wall framing where Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is joined must be nominal 50 mm width (i.e. 45 mm minimum finished width).
- 7.4 Timber framing must have a maximum moisture content of 20% at the time of the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier application. [Note: If Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is fixed to framing with a moisture content of greater than 20% problems may occur at a later date due to excessive timber shrinkage.)



## Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Set Out

- 7.5 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier must be installed vertically and must be jointed on stud only.
- 7.6 At the base of the wall, the lining must hang below the bottom plate a minimum of 15 mm, up to a maximum of 40 mm.

#### General

- 7.7 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is intended for use as a rigid wall underlay fixed over timber-framed walls in order to support the wind pressures, and to act as a secondary barrier to wind-driven rain.
- 7.8 Commencing from installation, Innova™ Durabarrier™ Rigid Sheathing/Air Barrier must not be exposed to the weather for more than 90 days.
- 7.9 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier may be used as a temporary weather-protecting sheathing to allow the 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 must have a maximum moisture content as specified by the internal lining system supplier at the time of the insulation installation and internal lining application.
- 7.10 When used in accordance with this Appraisal and the Technical Literature, the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier can be used to meet the wall bracing element requirements of NZS 3604, for timber-framed buildings not requiring specific design. The Technical Literature contains details of the construction of the various bracing systems and the bracing unit ratings achieved for each system. The bracing types and ratings are also given within Tables 3 and 4.
- 7.11 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is suitable for use under wall claddings as a rigid wall underlay in accordance with NZBC Acceptable Solution E2/AS1, Table 23 on timber-framed buildings. Non-absorbent claddings must not be installed directly over the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier. Refer to Table 1.

Table 1: NZBC E2/AS1 Table 23 Requirements

NZBC E2/AS1, Table 23 Rigid Sheathing Properties	Property Performance Requirement	Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Actual Property Performance
Surface Absorbency	≥ 100 g/m²	Pass
Vapour Resistance	≤ 7 MN s/g	0.6 MN s/g
Water Resistance	≥ 20 mm	Pass

## Structure

#### Mass

8.1 The mass of the 4.5 mm thick Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is approximately 7.1 kg/m² and the 6 mm thick sheets is approximately 9.5 kg/m² 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier is suitable for use in all Wind Zones of NZS 3604, up to, and including, Extra High. Innova™ Durabarrier™ Rigid Sheathing/Air Barrier can also be used on timber-framed buildings, subject to specific design up to a design differential ULS wind pressure of 2.5 kPa. The sheets must be fixed at centres as specified in Table 2. These spacings do not apply for bracing systems, refer to Paragraphs 8.5 and 8.6. The fixings must be positioned a minimum of 12 mm from all sheet edges, and a minimum of 50 mm from sheet corners. The fastener heads must finish flush with the sheet surface.



## Table 2: Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Fixing Centres

N7C 2CO/I Building Wind 7one	Fixing Centres to Studs, Plates and Dwangs		
NZS 3604 Building Wind Zone	Innova™ Durabarrier™ 4.5 mm	Innova™ Durabarrier™ 6 mm	
Low	300 mm	300 mm	
Medium	300 mm	300 mm	
High	200 mm	300 mm	
Very High	200 mm	200 mm	
< 2.5 kPa	150 mm	200 mm	
Bracing	150 mm	150 mm	
Fire Rated	N/A	150 mm	

- 8.3 The length of the selected wall cladding fixing must be increased by minimum 6 mm to maintain the face load strength of the wall cladding system.
- 8.4 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier can be used as an alternative to metal straps or 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 coil-gun nails, or hand-driven 40 x 2.8 mm hot-dip galvanised 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.

Table 3: Innova™ Durabarrier™ 4.5 mm Bracing

Innova™ System	Minimum Bracing Element Length (m)	Hold Downs Required	NZS 3604 Bracing Rating (BUs/m)	
			Wind	Earthquake
B1	0.4	Straps	91	89
B2	0.6	Straps	106	92
В3	1.2	Straps	112	90
B4	1.2	GIB® Handibrac®	112	97
B5	2.4	Straps	106	82
B6	2.4	GIB® Handibrac®	127	101

Table 4: Innova™ Durabarrier™ 6 mm Bracing

Innova™ System	' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	Hold Downs	NZS 3604 Bracing Rating (BUs/m)	
		Required	Wind	Earthquake
B20	0.4	GIB® Handibrac®	104	103
B21	0.6	GIB® Handibrac®	124	111
B22	1.2	GIB® Handibrac®	135	115

#### Bracing

- 8.5 The bracing units achieved (wind and earthquake) when using Innova™ Durabarrier™ Rigid Sheathing/Air Barrier are given in Tables 3 and 4. Sheet fixings must be maximum 150 mm centres to all framing. The Technical Literature gives details of edge and end fixing distances. The Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Technical Literature provides comprehensive construction and panel hold-down details.
- 8.6 The bracing units are derived from the BRANZ P21 test method based on a wall height of 2.4 m. For any other wall height, the bracing rating can be calculated by multiplying the appropriate value by 2.4 and dividing by the wall height in metres, except that panels less than 1.8 m high must be rated as if they were 1.8 m high.

#### **Penetrations for Services**

8.7 Holes up to 100 x 100 mm positioned no closer than 200 mm to the edge of a sheet or to another hole, may be allowed for services in Innova™ Durabarrier™ Rigid Sheathing/Air Barrier without affecting the bracing rating of the panel.

## Durability

## Serviceable Life

- 9.1 Provided it is not exposed to the weather or ultraviolet (UV) light for a total of more than 90 days, and provided the exterior cladding is maintained in accordance with the cladding manufacturer's instructions and the cladding remains weather-resistant, Innova™ Durabarrier™ Rigid Sheathing/ Air Barrier is expected to have a serviceable life of at least 50 years.
- 9.2 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. To achieve a 50 year serviceable life in Zone D, Innova™ Durabarrier™ sheets must be fixed with stainless steel or protected hot-dip galvanised steel fasteners. Fasteners outside Zone D may be hot-dip galvanised steel. In all corrosion zones where Innova™ Durabarrier™ Rigid Sheathing/ Air Barrier is used to achieve wall bracing, it must be fixed with stainless steel fasteners.
- 9.3 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 for fasteners. The fixing of Innova™ Durabarrier™ sheets in areas subject to microclimatic conditions requires specific design in accordance with NZS 3604, Paragraph 4.2.4, and is outside the scope of this Appraisal.

#### Maintenance

10.1 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier will not normally require maintenance. However, if damage occurs to the cladding or lining protecting the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier or to the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier itself, the repairs or replacement must be carried out to ensure the integrity of the rigid wall underlay or wall bracing system.

## **Prevention of Fire Occurring**

11.1 Separation or protection must be provided to the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Acceptable Solution C/AS1 and NZBC Acceptable Solution C/AS2 provide methods for separation and protection of combustible materials from heat sources.

## Fire Affecting Areas Beyond the Fire Source

## **Vertical Fire Spread**

12.1 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.

## **Horizontal Fire Spread**

12.2 Where the external wall is not protected by a sprinkler system or separated from the relevant boundary as required by NZBC Acceptable Solution C/AS1 or NZBC Acceptable Solution C/AS2 Part 5, the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier will need to be installed as a fire resistance rated (FRR) external wall system with the required FRR. See also Paragraph 12.5.



#### **External Cladding Systems**

- 12.3 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier achieves a Type A classification and is therefore suitable for use on external walls in accordance with NZBC Acceptable Solutions C/AS1, Table 5.3.1.1 and NZBC Acceptable Solution C/AS2, Section 5.8.
- 12.4 Refer to NZBC Acceptable Solutions NZBC Acceptable Solution C/AS1 and C/AS2 and NZBC Verification Method C/VM2 for fire resistance ratings and control of external fire spread requirements for external walls.

## Fire Resistant Ratings (FRRs)

12.5 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier can be used for loadbearing and non-loadbearing walls to form FRR separations with an FRR of 30/30/30 or 60/60/60 when constructed in accordance with the Technical Literature.

#### **External Moisture**

- 13.1 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier must be used behind claddings that meet the performance requirements of NZBC Clause E2.
- 13.2 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier, 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 Requirement

14.1 All design and building work must be carried out in accordance with the Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Technical Literature and this Appraisal by competent and experienced tradespeople conversant with rigid wall underlay applications. 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 Licence Class.

## System Installation

## Innova™ Durabarrier™ Rigid Sheathing/Air Barrier Installation

- 15.1 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Innova™ Durabarrier™ sheets must be dry prior to installation. Cut sheet edges that are left exposed must be sealed prior to installation.
- 15.3 Prior to fixing Innvoa™ Durabarrier™ Rigid Sheathing/Air Barrier, a check must be made to ensure all sheet edges will be supported by framing.
- 15.4 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier must be fixed to the timber framing with fixings as specified in Paragraph 4.2. Refer to Table 2 for fixing centres and Paragraphs 9.2 and 9.3 for material selection.
- 15.5 Innova™ Durabarrier™ sheets must be installed vertically with a 1-2 mm gap between the sheet edges. Sheets at horizontal joints between floor levels must be installed with a minimum 10 mm gap between the sheet edges and must be supported over horizontal framing. Sheets at inter-storey floor levels 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 Z-flashing.
- Any damaged areas of Innova™ Durabarrier™ Rigid Sheathing/Air Barrier, such as holes or gaps around service penetrations, must be repaired. Damaged areas can be repaired by covering with joint sealing tape or proprietary penetration seals.

#### **Joint Sealing Tape Installation**

- 15.7 All vertical sheet joints, internal and external corners must be covered with SUPER-STICK Flexible Flashing Tape or 3M All Weather Flashing Tape 8067. 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 The Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier installations.

## Health and Safety

- 16.1 Cutting of Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Racking tests were carried out by BRANZ in accordance with BRANZ Technical Paper P21. The earthquake and wind bracing ratings were determined using the evaluation procedures outlined in BRANZ Technical Recommendation No. 10.
- 17.2 Testing has been carried out by BRANZ to determine the face load pressure resistance of Innova™ Durabarrier™ Rigid Sheathing/Air Barrier.
- 17.3 Fastener pull-through tests were completed to determine the suitability of alternative nail fixings.
- 17.4 The resistance of Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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.
- 17.5 Fire resistance testing in accordance with AS 1530.4.

## Other Investigations

- 18.1 Structural, fire and durability opinions were given by BRANZ technical experts.
- 18.2 Site inspections have been carried out by BRANZ to assess the practicability of installation and to examine completed installations.
- 18.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.



- 18.4 BRANZ expert opinion on NZBC Clause E2 code compliance for Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 NZBC Acceptable Solution E2/AS1 for rigid sheathings.
- 18.5 Site inspections were carried out by BRANZ to assess the practicability of installation.
- 18.6 The Technical Literature for Innova™ Durabarrier™ Rigid Sheathing/Air Barrier has been examined by BRANZ and found to be satisfactory.

## Quality

- 19.1 The manufacture of Innova™ Durabarrier™ Rigid Sheathing/Air Barrier has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory. BRANZ has taken note of the CodeMark Certification across a range of Etex Australia Pty Ltd fibre cement products.
- 19.2 The quality of materials, components and accessories supplied by Etex Australia Pty Ltd is the responsibility of Etex Australia Pty Ltd. The quality control system of the Innova™ Durabarrier™ sheet supplier has been assessed and registered as meeting the requirements of ISO 9001 by SAI Global.
- 19.3 Quality of installation on-site of components and accessories supplied by Etex Australia Pty Ltd 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, flashings, joint seal tapes and flexible sill and jamb tape systems in accordance with the instructions of Etex Australia Pty Ltd.

## Sources of Information

- AS 1530.4:2005 Fire-resistance of elements of building construction.
- AS/NZS 1170:2002 Structural design action General principles.
- AS/NZS 2908.2:2000 Cellulose-cement products Flat sheets.
- AS/NZS 4200.1:2017 Pliable building membranes and underlays Materials.
- AS/NZS 4201.4:1994 Pliable building membranes and underlays Methods of test Resistance to water penetration.
- 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 31 October 2024

This Appraisal has been amended to update the Appraisal Holder, product name, Technical Literature and to reflect the building code updates relating to fire in Paragraphs 11.1 and 12.1-12.5.





In the opinion of BRANZ, Innova™ Durabarrier™ Rigid Sheathing/Air Barrier 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 Etex Australia Pty Ltd, 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. Etex Australia Pty Ltd:
  - 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 Etex Australia Pty Ltd.
- 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.
- BRANZ provides no certification, guarantee, indemnity or warranty, to Etex Australia Pty Ltd or any third party.

For BRANZ

Chelydra Percy Chief Executive Date of Issue:

09 August 2019