



BRANZ Appraised

Appraisal No. 721 [2019]

BGC DURABARRIER™ RIGID SHEATHING/ AIR BARRIER

Appraisal No. 721(2019)

This Appraisal replaces BRANZ
Appraisal No. 721 [2011]



BRANZ Appraisals

Technical Assessments of products
for building and construction.



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Product

- 1.1 BGC 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 BGC DurabARRIER™ Rigid 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 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 BGC 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 BGC 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, BGC Durabarrier™ Rigid Sheathing/ Air Barrier, 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. BGC 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. BGC 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, BGC Durabarrier™ Rigid Sheathing/ Air Barrier will contribute to meeting this requirement. See Paragraphs 13.1 and 13.2.
- Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. BGC Durabarrier™ Rigid Sheathing/ Air Barrier meets this requirement and will not present a health hazard to people.
- 3.2 BGC 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier, which are supplied by BGC [Australia] Pty Ltd T/A BGC Fibre Cement are:

BGC Durabarrier™ Rigid Sheathing/ Air Barrier

- BGC Durabarrier™ Rigid Sheathing/ Air Barrier is available as 4.5 mm and 6.0 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.
- BGC Durabarrier™ Rigid Sheathing/ Air Barrier is available in sheet widths of 1200 mm wide. The 4.5 mm thick product is available in lengths of 2450 mm and 2750 mm. The 6.0 mm thick product is available in 2450 mm and 3000 mm lengths. It is manufactured to conform to the requirements of AS/NZS 2908.2.
- Aluminium Z-flashing 3.0 m long
- BGC Edge Sealer – acrylic sealer supplied in a 400 g can to seal cut edges of BGC Durabarrier™ Sheathing/ Air Barrier.

Accessories

- 4.2 System components and accessories for BGC Durabarrier™ Rigid Sheathing/ Air Barrier, which are supplied by the building contractor are:
- **Durabarrier™ sheet fixings** – 40 x 2.8 mm hot-dipped 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** – SUPER-STICK [Marshall Innovations Ltd] or 3M All Weather Flashing Tape 8067 [3M New Zealand Ltd].
 - **Joint sealing tape** – minimum 75 mm wide SUPER-STICK or 3M 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-dipped 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 5 Type 17 screws 14 g x 35 mm.



- **Concrete floor end-stud hold-down** – M12 x 150 mm minimum hot-dipped galvanised bolts or proprietary anchor with a minimum characteristic pull-out strength of 15 kN, with a 50 x 50 x 3 mm hot-dipped galvanised washer or proprietary anchors with a minimum characteristic pull-out strength of 15kN.

Handling and Storage

- 5.1 Handling and storage of all materials supplied by BGC [Australia] Pty Ltd T/A BGC Fibre Cement or the building contractor, whether on site or off site, is under the control of the building contractor. BGC Durabarrier™ 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

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for BGC Durabarrier™ Rigid Sheathing/ Air Barrier. 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 BGC 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 ultimate limit state [ULS] wind pressure of 2.5 kPa. Dwargs 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 BGC 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier application. *[Note: If BGC 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.]*

BGC Durabarrier™ Rigid Sheathing/ Air Barrier Set Out

- 7.5 BGC 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 BGC 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, BGC Durabarrier™ Rigid Sheathing/ Air Barrier must not be exposed to the weather for more than 90 days.
- 7.9 BGC 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 BGC 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 airseals. 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 Installation Manual, 4.5 mm and 6.0 mm BGC 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier is suitable for use under wall claddings as a rigid wall underlay as called up in NZBC Acceptable Solution E2/AS1, Table 23 on timber framed buildings, except that non-absorbent claddings must not be installed directly over the BGC 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	BGC Durabarrier™ Rigid Sheathing/ Air Barrier Actual Property Performance
Surface Absorbency	≥ 100 g/m ²	Pass
Vapour Resistance	≤ 7 MN s/g	0.6 MN s/g
Water Resistance	≥ 20 mm	Pass

Structure

Mass

- 8.1 The mass of BGC Durabarrier™ Rigid Sheathing/ Air Barrier is approximately 7.1 kg/m² for 4.5 mm thickness and 9.5 kg/m² for 6.0 mm thickness 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier is suitable for use in all Wind Zones of NZS 3604, up to, and including, Extra High. BGC Durabarrier™ Rigid Sheathing/ Air Barrier can also be used on timber framed buildings, subject to specific design up to a design differential ultimate limit state [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, see Paragraphs 8.5 - 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: BGC DurabARRIER™ Rigid Sheathing/ Air Barrier Fixing Centres

NZS 3604 Building Wind Zone	Fixing Centres to Studs, Plates and Dwargs	
	BGC DurabARRIER™ 4.5 mm	BGC DurabARRIER™ 6.0 mm
Low	300 mm	300 mm
Medium	300 mm	300 mm
High	200 mm	300 mm
Very High	200 mm	200 mm
<2.5kPa	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 BGC 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 BGC 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: BGC DurabARRIER™ 4.5 mm Bracing

BGC 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
B3	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: BGC DurabARRIER™ 6.0 mm Bracing

BGC System	Minimum Bracing Element Length [m]	Hold Downs Required	NZS 3604 Bracing Rating [BUs/m]	
			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 BGC 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 BGC 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 BGC 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 ultra-violet 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, BGC 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 metres 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, BGC 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 BGC 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 BGC 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier will not normally require maintenance. However, if damage occurs to the cladding or lining protecting the BGC Durabarrier™ Rigid Sheathing/ Air Barrier or to the BGC 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier from heat sources such as fireplaces, heating appliances and chimneys. Part 7 of NZBC Acceptable Solution C/AS2 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.

Control of External Fire Spread

Surface Spread of Flame

- 12.1 Refer to NZBC Acceptable Solutions and Verification Methods C/AS1, C/AS2 and C/VM2 for Requirements for fire rating and exterior surface finish requirements of external walls.



Fire Resistant Ratings of External Walls

- 12.2 BGC Durabarrier™ Rigid Sheathing/ Air Barrier can be used for load-bearing and non-load-bearing walls to provide passive fire protection. Fire Resistance Ratings (FRR) of up to 60/60/60 can be achieved with the system. Construction details are contained in the technical literature and must be strictly followed to obtain the required FRR.

External Moisture

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

- 14.1 All design and building work must be carried out in accordance with the BGC Durabarrier™ Rigid Sheathing/ Air Barrier Technical Literature and this Appraisal by competent and experienced tradespersons conversant with Rigid Wall Underlay Systems. 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

BGC Durabarrier™ Rigid Sheathing/ Air Barrier Installation

- 15.1 BGC 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 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 BGC Durabarrier™ Rigid Sheathing/ Air Barrier, a check must be made to ensure all sheet edges will be supported by framing.
- 15.4 BGC 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 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.
- 15.6 Any damaged areas of BGC 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 or 3M 8067 joint sealing 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 The BGC 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 BGC DurabARRIER™ Rigid Sheathing/ Air Barrier Installation Manual. 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 BGC DurabARRIER™ Rigid Sheathing/ Air Barrier installations.

Health and Safety

- 16.1 Cutting of BGC 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 BGC DurabARRIER™ Rigid Sheathing/ Air Barrier and the components that make up the cladding system are provided in the relevant manufacturer's Installation Manual.

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



Quality

- 19.1 The manufacture of BGC DurabARRIER™ Rigid Sheathing/ Air Barrier 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 BGC [Australia] Pty Ltd T/A BGC Fibre Cement is the responsibility of BGC [Australia] Pty Ltd T/A BGC Fibre Cement. The quality control system of the DurabARRIER™ sheet supplier, BGC [Australia] Pty Ltd T/A BGC Fibre Cement, has been assessed and registered as meeting the requirements of ISO 9001:2015 by SAI Global, Registration Number QEC 2955/13.
- 19.3 Quality of installation on site of components and accessories supplied by BGC [Australia] Pty Ltd T/A BGC Fibre Cement 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 BGC [Australia] Pty Ltd T/A BGC Fibre Cement.

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.



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BGC DURABARRIER™ RIGID
SHEATHING/ AIR BARRIER



In the opinion of BRANZ, **BGC 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 **BGC [Australia] Pty Ltd T/A BGC Fibre Cement**, 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. **BGC [Australia] Pty Ltd T/A BGC Fibre Cement**
 - 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 **BGC [Australia] Pty Ltd T/A BGC Fibre Cement**
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 **BGC [Australia] Pty Ltd T/A BGC Fibre Cement** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

9 August 2019