BRANZ Appraised

Appraisal No. 1064 (2025)

INTEGRA CENTRAL BARRIER INTERTENANCY SYSTEM

Appraisal No. 1064 (2025)

This Appraisal replaces BRANZ Appraisal No. 1064 (2019)

BRANZ Appraisals

Technical Assessments of products for building and construction.

Resene Construction Systems

Rockcote Resene Ltd t/a Resene Construction Systems
PO Box 39 108
Harewood
Christchurch
Tel: 03 338 6328
Web: www.reseneconstruction.co.nz

BRANZ

BRANZ
1222 Moonshine Rd,
RD1, Porirua 5381
Private Bag 50 908
Porirua 5240,
New Zealand
Tel: 04 237 1170
branz.co.nz

Product

1.1 The Integra Central Barrier Intertenancy System is a sound insulating and fire-rated wall system. The Integra Central Barrier Intertenancy System achieves a fire resistance rating (FRR) of 120/120/120 and a Sound Transmission Class (STC) of up to 67.

1.2 The Integra Central Barrier Intertenancy System is a proprietary intertenancy wall system which provides horizontal fire and acoustic separation between adjacent occupancies within the same building. The core component of the system is Integra - a high-tech, lightweight, aerated autoclaved concrete (AAC) panel that is installed between traditional wall framing which has insulation and plasterboard lining on the outer faces.

Scope

2.1 The Integra Central Barrier Intertenancy System is appraised for use as fire-rated and sound insulating internal walls between household units within the following scope:

- the scope limitations of NZS 3604 for timber-framed buildings; or,
- the scope limitations of NASH Building Envelope Solutions, Paragraph 1.1 for steel-framed buildings; or,
- to a specific engineering design for timber, steel or concrete-framed buildings (refer to Paragraph 8.3); and,
- with a maximum building height of 10 m when designed in accordance with NZS 3604 or NASH Building Envelope Solutions; or,
- with a maximum intertenancy wall height of 12 m when subject to a specific engineering design.

Building Regulations

New Zealand Building Code (NZBC)

3.1 **In the opinion of BRANZ, Integra Central Barrier Intertenancy System, 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. Integra Central Barrier Intertenancy System meets the requirements for loads arising from self-weight, imposed gravity loads arising from use and impact [i.e. B1.3.3(a), (b) and (j)]. See Paragraphs 8.1–8.4.

Clause B2 DURABILITY: Performance B2.3.1 (a) not less than 50 years. Integra Central Barrier Intertenancy System meets this requirement. See Paragraphs 9.1 and 9.2.

Clause C3 FIRE AFFECTING AREAS BEYOND THE FIRE SOURCE: Performance C3.4 (a) and C3.6. Integra Central Barrier Intertenancy System contributes to meeting these requirements. See Paragraphs 12.1 and 12.2.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Integra Central Barrier Intertenancy System meets this requirement.

Clause G6 AIRBORNE AND IMPACT SOUND: Performance G6.3.1. Integra Central Barrier Intertenancy System meets this requirement. See Paragraphs 14.1 and 14.2.

Technical Specification

4.1 The components and accessories used with Integra Central Barrier Intertenancy System, which are supplied by Resene Construction Systems are:

- **Integra Panel** (Central Barrier) – 2,200 mm long x 600 mm wide x 50 mm thick AAC panels with a density of approximately 26 kg/m^2.
- **Plaster Systems Limited (PSL) AAC Adhesive** - a plaster used for bonding the AAC panels together. It is supplied in 20 kg bags and mixed on-site with clean drinking water.
- **Intertenancy Bracket** – 75 x 50 x 3 mm aluminium brackets used to secure Integra panels to neighbouring structural wall framing. The Intertenancy Bracket is used in conjunction with a sound and heat-resistant dampener.
- **Intertenancy Bracket to Integra panel fastener** – 12 g x 75 mm galvanised screw with EPDM washer.
- **Intertenancy Bracket fastener to timber or steel framing** – 12 g x 45 mm galvanised screw with EPDM washer.

4.2 Accessories used with the Integra Central Barrier Intertenancy System, which are supplied by the building contractor are:

- **Plasterboard** - as listed in the Technical Literature.
- **Insulation** – as listed in the Technical Literature.
- **Anti-corrosion coatings** – as listed in the Technical Literature. Used to prime any exposed steel that may be exposed when the Integra panels are cut.
- **Fire and acoustic sealants** – as listed in the Technical Literature. Proprietary penetration seals and sealants have not been assessed and are outside the scope of this Appraisal.

Handling and Storage

5.1 Integra panels must be handled carefully at all times to avoid physical damage and kept dry under cover until ready for construction.

5.2 Handling and storage of all materials supplied by the building contractor, whether on-site or off-site, are under the control of the building contractor. Materials must be handled and stored in accordance with the relevant manufacturer's instructions.

Technical Literature

6.1 This Appraisal must be read in conjunction with:

- Integra Central Barrier Intertenancy System Technical Manual, Version 3, dated February 2025.
- Integra Lightweight Concrete Intertenancy System, Timber Frame drawing register 34.00.00, dated 6 June 2025.
- Integra Lightweight Concrete Intertenancy System, Steel Frame drawing register 33.00.00, dated 21 May 2025.

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

General

7.1 The Integra Central Barrier Intertenancy System is for use in forming the part of the structure that is a wall between adjoining occupancies. The rest of the building structure may be:

- timber-framed structures designed and constructed in accordance with NZS 3604; or,
- light steel-framed structures designed and constructed in accordance with NASH Building Envelope Solutions; or,
- specifically designed timber or steel-framed structures; or,
- specifically designed concrete-framed structures.

7.2 The Integra Central Barrier Intertenancy System can be constructed in a range of configurations to provide various acoustic performance levels. The particulars regarding specification of the various configurations are given in the system's Technical Literature.

7.3 Integra Central Barrier Intertenancy System meets the provisions of NZBC Clause G6 for the transfer of airborne sound through wall elements between occupancies or spaces not requiring NZBC compliance, such as between rooms and spaces of the same occupancy.

7.4 Insulation must be as specified in Integra Central Barrier Intertenancy System to achieve the STC classification stated in the Technical Literature.

7.5 Mechanical bridging across the cavity must be avoided as it will significantly reduce the sound insulating performance of the wall. 'Bridging' refers to any item connecting from one side of the wall to the other side, including, but not limited to, electrical wires, insulation compressed between battens, temporary fasteners to hold insulation in place and walls running past the end of the intertenancy wall.

7.6 The Integra Central Barrier Intertenancy System is suitable for use with concrete or timber-framed floors. Where a timber floor is used, the floor platform must not be continuous under the Integra Intertenancy Wall. Cavities or openings in the floor platform encroaching on the wall must be enclosed by solid blocking or fire stopping with mineral wool or ceramic fibre insulation to halt the spread of flame between occupancies. Concrete floors may be continuous under the Integra Intertenancy Wall.

7.7 Penetrations within the body of the Integra Central Barrier Intertenancy System for the purposes of piped services, cables or the like have not been considered and are outside the scope of this Appraisal. The effect of the penetrations on acoustic and fire rating performance of the wall must be addressed separately and is the responsibility of the designer.

7.8 Should control joints be required in the Integra Central Barrier Intertenancy System, the joints shall be specifically designed to maintain the integrity of the sound control and fire resistance ratings of the system. Control joints have not been assessed and are outside the scope of this Appraisal.

Structure

8.1 Integra panels do not fulfil any structural function and should be considered as non-loadbearing. The wall framing each side of the intertenancy wall can either be loadbearing or non-loadbearing and shall be designed to accommodate all structural loads that are required in the building.

8.2 In cases where the wall framing is subject to specific engineering design, it shall be of at least equivalent stiffness to the framing provisions of NZS 3604. In all cases, studs must be at a maximum of 600 mm centres.

8.3 The Integra panel core of the Integra Central Barrier Intertenancy System has a low ductility factor. The designer should consider the need to accommodate any potential for movement within the abutting building structure that may arise as a result of building design and seismicity.

8.4 The specific fixing requirements for Integra Central Barrier Intertenancy System are provided within the Technical Literature.

Durability

9.1 The Integra Central Barrier Intertenancy System, including linings and their fixings, have a serviceable life of at least 50 years, subject to remaining dry in service and being maintained in accordance with this Appraisal.

9.2 Durability of the Integra Central Barrier Intertenancy System, including the timber framing, is dependent on remaining dry in service. It is also dependent on the Integra panels not being exposed to the outside environment for more than 90 days. The Integra Central Barrier Intertenancy System is for internal walls only, must be fully enclosed within the building envelope and suitably protected from moisture ingress throughout its serviceable life.

Maintenance

10.1 The building must remain weather-tight and all components of the Integra Central Barrier Intertenancy System protected from internal and external moisture. The internal linings or finishing must be maintained to provide protection from internal moisture. Regular inspections (at least annually) of the external cladding system and the internal linings and finishes must be made, and any damage or deterioration repaired or remediated.

10.2 Minimal maintenance is required for the Integra Central Barrier Intertenancy System. Damage to any plasterboard surfaces must be repaired to ensure the fire and acoustic performance of the wall.

Prevention of Fire Occurring

11.1 Separation or protection must be provided to Integra Central Barrier Intertenancy System 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

Internal Surface Finishes

12.1 When an applied finish is used over the Integra Central Barrier Intertenancy System, the Group Number must be obtained from the manufacturer or supplier of the finish product or system, for the complete lining system. Integra Central Barrier Intertenancy System can be used as an internal wall surface lining where permitted by NZBC Performance Clause C3.4 (a).

Fire Resistance Ratings

12.2 The Integra Central Barrier Intertenancy System can be used in conjunction with loadbearing and non-loadbearing walls to form FRR separations with an FRR of 120/120/120 when constructed in accordance with the Technical Literature.

Structural Stability During Fire

12.3 For buildings within the scope of NZBC Acceptable Solution C/AS2, Section 4.3 Structural stability during fire provides details on the requirements for primary building elements that structurally support a FRR separation.

Internal Moisture

13.1 The Integra Central Barrier Intertenancy System must be protected against the effects of internal moisture. Walls in wet areas must be finished with a protective coating system.

13.2 In wet areas (where sanitary fixtures are installed), and in rooms where the walls are likely to be subject to watersplash, the interior plasterboard surface of Integra Central Barrier Intertenancy System must be finished with an impervious lining which is easily cleaned. These linings must meet the relevant Group Number requirements mentioned in Paragraph 12.1 above. All joints must be impervious to water, and protection of the walls must be provided by extending impervious floor membranes up the wall in accordance with the detail contained in NZBC Acceptable Solution E3/AS1, Figure 1.

Airborne and Impact Sound

14.1 The Integra Central Barrier Intertenancy System, when used in accordance with this Appraisal, will meet the requirements of NZBC Performance G6.3.1 and can be used to prevent undue noise transmission from other occupancies or common spaces, to the habitable spaces of household units.

14.2 The acoustic performance of construction methods otherwise than in accordance with the Technical Literature have not been considered and are outside the scope of this Appraisal.

Installation Information

Installation Skill Level Requirement

15.1 Installation of Integra Central Barrier Intertenancy System must be completed by, or under the supervision of a Licensed Building Practitioner with the relevant Licence Class, in accordance with the Technical Literature and this Appraisal.

General

16.1 Integra Central Barrier Intertenancy System must be installed in accordance with the information contained within the Technical Literature.

16.2 Integra panels must be inspected for physical damage before installation and protected from damage during the construction process. In the event of damage to Integra panels, damaged panels shall be repaired or replaced.

16.3 Particular care must be taken to ensure that the foundations and building platform are level and square and that the neighbouring wall framing is straight and plumb.

16.4 All timber framing must have a moisture content of not more than 18% at the time of enclosure.

16.5 When cutting Integra panel edges, all exposed steel reinforcement must be coated with anti-corrosion coatings as listed within the Technical Literature.

16.6 The Integra Central Barrier Intertenancy System is constructed by erecting the wall framing to one side of the wall and attaching the intertenancy brackets and associated fixings to the framing as detailed in the Technical Literature. Following this, the Integra panels are placed, jointed together with PSL AAC Adhesive in a horizontal stack bond pattern. As panels are placed, they are immediately screw fixed to the intertenancy brackets, ensuring support of the panels both in service and throughout the construction process. At the conclusion of the Integra panel placement, the wall framing to the opposite side of the intertenancy wall can be erected and intertenancy brackets subsequently installed between the Integra panels and the second wall frame. Installing insulation and piped/wired services within the framing cavity can be carried out in accordance with the detail given in the Technical Literature.

16.7 Plasterboard wall linings shall be installed in accordance with the relevant specification given in the Technical Literature, observing the requirements for sheet layout in instances where two layers of plasterboard are required. Final finishing of the wall shall be achieved in accordance with the plasterboard manufacturers Technical Literature, including installation of acoustic rated sealants around any service penetrations through the plasterboard. Paint coatings and other applied finishes to the wall shall be applied in accordance with the relevant manufacturer's instructions.

16.8 Roof claddings should be installed as soon as practicable during the construction of the building. The maximum weather exposure time for Integra panels is 90 days. Construction sequencing must ensure that moisture sensitive materials such as insulation and plasterboard are not exposed to the weather under any circumstance. When exposure to the weather is anticipated during building construction, waterproof covers such as tarpaulins are recommended to keep the Integra Central Barrier Intertenancy System dry.

Health and Safety

17.1 Suitable protective masks must be worn to prevent inhalation of dust resulting from cutting or working with Integra panels.

Basis of Appraisal

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

Tests

18.1 The Integra Central Barrier Intertenancy System has been tested to AS 1530.4 in accordance with NZBC Acceptable Solution C/AS1, Appendix E E3.1.1 a) and NZBC Acceptable Solution C/AS2, Appendix C C5.1.1 a).

18.2 Laboratory measurement of airborne sound insulation of the Integra Central Barrier Intertenancy System has been carried out by Auckland Uniservices Limited. The results of this testing have been assessed by Acoustic Engineering Services Limited and found to be satisfactory.

Other Investigations

19.1 An assessment of the fire performance of the Integra Central Barrier Intertenancy System to AS 1530.4 has been carried out by BRANZ experts and found to be satisfactory.

19.2 The construction of the Integra Central Barrier Intertenancy System has been evaluated by BRANZ and found to be satisfactory.

19.3 The Technical Literature has been examined by BRANZ and found to be satisfactory.

Quality

20.1 Details of materials and components used and methods adopted for quality control have been obtained by BRANZ and found to be satisfactory.

20.2 The quality of materials, components and accessories supplied by Resene Construction Systems is the responsibility of Resene Construction Systems.

20.3 Quality on-site is the responsibility of building contractor and installer.

20.4 The designer is responsible for the building design, and the installer is responsible for the quality of installation of Integra panels.

20.5 Building owners are responsible for the maintenance of Integra Central Barrier Intertenancy System.

Sources of Information

- AS 1530.4:2014 Methods for fire tests on building materials, components and structure. Fire-resistance tests for elements of construction.
- AS/NZS 1170:2002 Structural design actions.
- NASH Building Envelope Solutions: 2019 Light steel-framed buildings.
- NASH Standard Part 2: May 2019 Light steel-framed buildings.
- NZS 3101:2006 Concrete structures standard.
- 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.

BRANZ

In the opinion of BRANZ, Integra Central Barrier Intertenancy System 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 Rockcote Resene Ltd t/a Resene Construction Systems, 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. Rockcote Resene Ltd t/a Resene Construction Systems:
   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 Rockcote Resene Ltd t/a Resene Construction Systems.
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 Rockcote Resene Ltd t/a Resene Construction Systems or any third party.

For BRANZ

Claire Falck
Chief Executive
Date of Issue:
08 July 2025