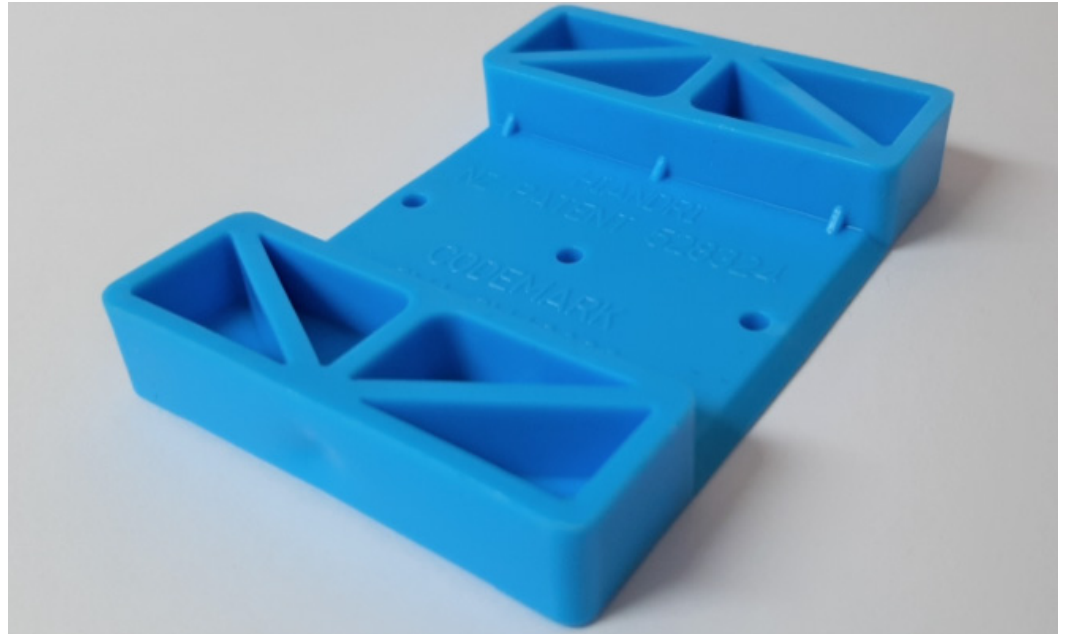




BRANZ Appraised
Appraisal No. 1095 [2020]

HIANDRI BOTTOM PLATE PACKERS

Appraisal No. 1095 [2020]



BRANZ Appraisals

Technical Assessments of
products for building and
construction.



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Product

- 1.1 Hiandri Bottom Plate Packers provide a 12 mm gap under the bottom plate of light weight timber framing to allow for unimpeded drainage of water from floors during construction. The packers are manufactured from polypropylene plastic with a plan dimension of 84 mm x 60 mm.

Scope

- 2.1 Hiandri Bottom Plate Packers are used for separating bottom plates of internal and external walls from concrete floor slabs or from timber flooring in timber framed buildings, to allow for unimpeded drainage of water from floors during construction.
- 2.2 This Appraisal covers the use of Hiandri Bottom Plate Packers in buildings otherwise designed and constructed in accordance with NZS 3604. The use of Hiandri Bottom Plate Packers with steel framed buildings or under fire or acoustically rated walls is outside the scope of this Appraisal.

Building Regulations

New Zealand Building Code (NZBC)

- 3.1 In the opinion of BRANZ, Hiandri Bottom Plate Packers 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. Hiandri Bottom Plate Packers meet the requirements for loads arising from self-weight, imposed gravity loads arising from use, earthquake, snow and wind [i.e. B1.3.3 (a), (b), (f), (g) and (h)]. See Paragraphs 8.1 - 8.5.

Clause B2 DURABILITY: Performance B2.3.1 (a) not less than 50 years and B2.3.2. Hiandri Bottom Plate Packers meet this requirement. See Paragraph 9.1.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.3 Hiandri Bottom Plate Packers meet this requirement.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Hiandri Bottom Plate Packers meet this requirement.



Technical Specifications

- 4.1 Components supplied by Hiandri Solutions Ltd are:
- Hiandri Bottom Plate Packers – manufactured from polypropylene plastic, measuring 84 mm x 60 mm x 12 mm and coloured blue.
- 4.2 Components supplied by the building contractor are:
- Fixings – Hiandri Bottom Plate Packers may be fixed to the bottom plate at the pre-cut stage, hand-nailed on site with a clout or fixed with a brad by a finishing gun.
 - Air Seal – Self-expanding moisture cure polyurethane foam complying with NZBC Acceptable Solution E2/AS1 Paragraph 9.1.6 [c] and installed in accordance with the instructions of Hiandri Solutions Ltd Technical Literature.
 - Proprietary bottom plate fixings in accordance with NZS 3604 or the Hiandri Solutions Ltd Technical Literature.
 - Proprietary bottom plate fixings for bracing elements in accordance with the Hiandri Solutions Ltd Technical Literature.

Handling and Storage

- 5.1 Hiandri Bottom Plate Packers and their associated accessories must be stored out of direct sunlight and handled carefully to prevent physical damage.

Technical Literature

- 6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Hiandri Bottom Plate Packers. The Technical Literature must be read in conjunction with this Appraisal. All aspects of design, installation, use and maintenance contained in the Technical Literature and within this Appraisal must be followed.

Design Information

- 7.1 Hiandri Bottom Plate Packers are used to lift the bottom plates of timber frames off the floor to create a gap between the bottom plate and the concrete slab or timber floor. This allows for accelerated drying of the timber framing by allowing rain water to drain off the floor structure instead of ponding. They may be used to contribute to meeting requirements as described in NZBC Acceptable Solution E2/AS1 Clause 10.0.
- 7.2 Hiandri Bottom Plate Packers may also be used with fire rated and/or acoustically rated walls, however this has not been assessed and is outside the scope of this Appraisal.

Structure

General

- 8.1 Girder trusses supporting a tributary roof area greater than 36 m² and up to 50 m² require a double packer. Where a girder truss with a tributary roof area greater than 20 m² and a mid-floor lintel coincide, a triple packer is required under the lower storey studs supporting the mid-floor lintel.
- 8.2 Hiandri Bottom Plate Packers may be fixed to the bottom plate at the pre-cut stage, hand-nailed on-site with clouts or fixed with brads by a finishing gun. Additional packers may be slipped underneath the bottom plate if required and do not have to be fixed in place.
- 8.3 On 140 mm x 45 mm frames, use two Hiandri Bottom Plate Packers side by side under each stud.

Bottom Plate Fixings

- 8.4 Fixings used for bottom plates must meet the requirements of Section 7.5.12 of NZS 3604 when used with Hiandri Bottom Plate Packers.



Bracing

- 8.5 Hiandri Bottom Plate Packers have been evaluated for use with a range of proprietary bracing systems and their associated hold down fixings. Hiandri Bottom Plate Packers were deemed to not reduce the effectiveness of these systems. Refer to Hiandri Solutions Ltd Technical Literature for compatible proprietary bracing systems. Proprietary bracing systems have not been assessed and are outside of the scope of this Appraisal.

Durability

Serviceable Life

- 9.1 The expected serviceable life of Hiandri Bottom Plate Packers is at least 50 years.

External Moisture

- 10.1 The total building envelope must be weathertight and comply with the requirements of NZBC Clause E2.
- 10.2 Hiandri Bottom Plate Packers can be used for compliance with NZS 3604 section 2.3.3 (a) requiring separation between framing timbers and concrete

Internal Moisture

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

Energy Efficiency

- 12.1 The 12 mm gap created by Hiandri Bottom Plate Packers must be sealed with a self-expanding polyurethane foam complying with either NZBC Acceptable Solution E2/AS1 Paragraph 9.1.6 (c), or covered by a valid BRANZ Appraisal for use around window, door and other wall penetration openings.

Maintenance

- 13.1 Hiandri Bottom Plate Packers do not require maintenance.

Installation Information

- 14.1 Installation of Hiandri Bottom Plate Packers must strictly be in accordance with the Technical Literature.

Basis of Appraisal

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

Tests

- 15.1 Comprehensive strength tests have been carried out on the Hiandri Bottom Plate Packers by independent laboratories. The results of these tests have been reviewed by BRANZ and found to be satisfactory.

Other Investigations

- 15.2 A structural assessment by BRANZ has been completed on testing supplied from independent laboratories.
- 15.3 A durability assessment has been carried out on Hiandri Bottom Plate Packers by BRANZ experts.



Quality

- 16.1 The manufacture of Hiandri Bottom Plate Packers has been examined by BRANZ and found to be satisfactory.
- 16.2 Quality of the supply of the product to the market is the responsibility of Hiandri Solutions Ltd.
- 16.3 Designers are responsible for the design of the building and incorporating the Hiandri Bottom Plate Packers in accordance with this Appraisal and the Technical Literature.
- 16.4 Quality of the installation is the responsibility of the installer.

Sources of Information

- 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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01 May 2020

HIANDRI BOTTOM PLATE
PACKERS



In the opinion of BRANZ, **Hiandri Bottom Plate Packers** 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 **Hiandri Solutions 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. **Hiandri Solutions 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 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 **Hiandri Solutions 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.
5. BRANZ provides no certification, guarantee, indemnity or warranty, to **Hiandri Solutions Ltd** or any third party.

For BRANZ

Chelydra Percy

Chief Executive

Date of Issue:

01 May 2020