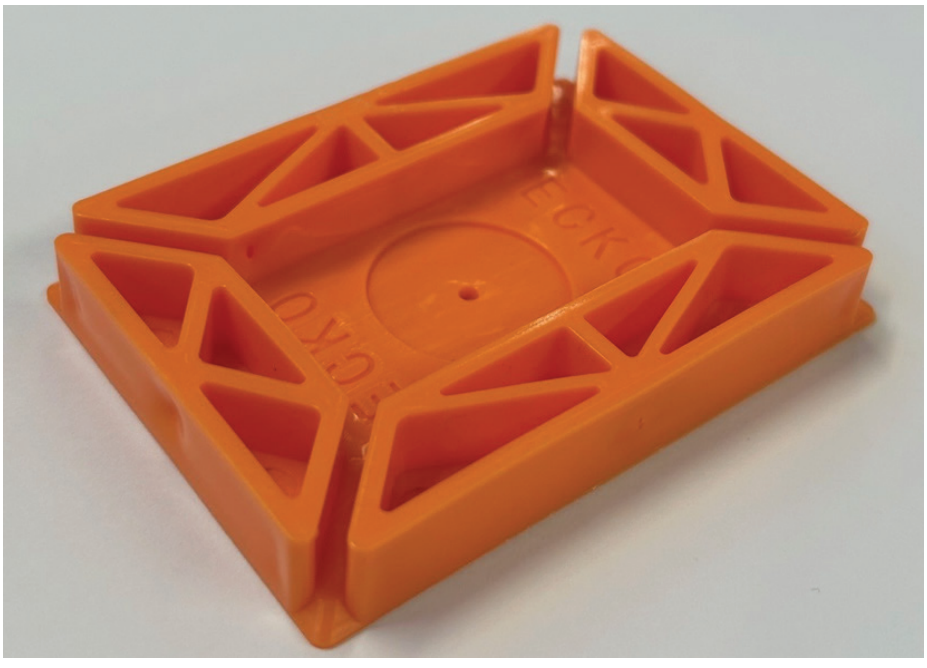
BRANZ Appraised

Appraisal No. 1292 (2025)

ECKO FRAMEFIT



Appraisal No. 1292 (2025)

BRANZ Appraisals

Technical Assessments of products for building and construction.

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Product

1.1 Ecko FrameFit provides a 12 mm gap under the bottom plate of lightweight 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 x 60 mm and are labelled on the underside with Ecko.

Scope

2.1 Ecko FrameFits are used for separating the 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 Ecko FrameFits in buildings otherwise designed and constructed in accordance with NZS 3604. The use of Ecko FrameFits 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, Ecko FrameFit, 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. Ecko FrameFit meets 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. Ecko FrameFit meets these requirements. See Paragraph 9.1.

Clause E2 EXTERNAL MOISTURE: Performance E2.3.3 Ecko FrameFit meets this requirement. See Paragraphs 11.1 and 11.2.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Ecko FrameFit meets this requirement.

Clause H1 ENERGY EFFICIENCY: Performance H1.3.1 and H1.3.2E. Ecko FrameFit contributes to meeting these requirements. See Paragraphs 12.1 and 12.2.

Readers are advised to check the validity of this Appraisal by referring to the Valid Appraisals listing on the BRANZ website, or by contacting BRANZ.

Technical Specifications

4.1 Components supplied by Ecko Fastening Systems Ltd are:

- **Ecko FrameFit** - a packer manufactured from polypropylene plastic, measuring 84 x 60 x 12 mm and coloured orange.

4.2 Components supplied by the building contractor are:

- **Fixings** - Ecko FrameFit 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** - complying with NZBC Acceptable Solution E2/AS1 or covered by a valid BRANZ Appraisal and installed in accordance with the Technical Literature.
- **Proprietary bottom plate fixings** - in accordance with NZS 3604.
- **Proprietary bottom plate fixings for bracing elements** - in accordance with the Technical Literature.

Handling and Storage

5.1 Ecko FrameFit and the associated accessories must be stored out of direct sunlight and handled carefully to prevent physical damage.

Technical Literature

6.1 This Appraisal must be read in conjunction with:

- FrameFit Installation Guide, Version 1.0, dated 14 July 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

7.1 Ecko FrameFits are used for separating the 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. They may be used to contribute to meeting requirements as described in NZBC Acceptable Solution E2/AS1, Part 10.

7.2 Ecko FrameFits 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 Two Ecko FrameFits are required under any supporting stud with a lintel with a span of 1,400 mm or greater.

8.2 Three Ecko FrameFits are required for use under any stud supporting a lintel with a span greater than 4,000 mm and up to 6,000 mm.

8.3 Studs under girder trusses supporting a tributary roof area greater than 36 m² and up to 50 m² require two packers. Where a girder truss with a tributary roof area greater than 20 m² and a mid-floor lintel coincide, three packers are required under the lower storey studs supporting the mid-floor lintel.

8.4 Ecko FrameFit 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.

8.5 On 140 x 45 mm frames, two Ecko FrameFits are required, side by side under each stud.

8.6 Ecko FrameFit must not be exposed to ultraviolet (UV) light for a total of more than 30 days before being enclosed by the wall cladding.

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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 Ecko FrameFit. The results of these tests have been reviewed by BRANZ and found to be satisfactory.

Other Investigations

16.1 A structural assessment by BRANZ has been completed.

16.2 A durability assessment has been carried out on the Ecko FrameFit by BRANZ experts.

16.3 An assessment has been completed by BRANZ of the Ecko FrameFit to not affect the thermal performance of the wall design when installed in accordance with the Technical Literature.

Quality

17.1 The manufacture of Ecko FrameFits 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.

17.2 Quality of the supply of the product to the market is the responsibility of Ecko Fastening Systems Ltd.

17.3 Designers are responsible for the design of the building and incorporating Ecko FrameFits in accordance with this Appraisal and the Technical Literature.

17.4 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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Bottom Plate Fixings

8.7 Fixings used for bottom plates must meet the requirements of Paragraph 7.5.12 of NZS 3604 when used with Ecko FrameFits.

Bracing

8.8 Whilst no proprietary bracing systems were assessed as part of this Appraisal, Ecko FrameFit has been evaluated to not reduce the effectiveness of proprietary bracing systems. Refer to the Technical Literature for compatible proprietary bracing systems.

Durability

9.1 Ecko FrameFit meets code compliance with NZBC Clause B2.3.1 (a) not less than 50 years. This is provided the cladding is maintained in accordance with the cladding manufacturer's instructions and the Ecko FrameFit is not exposed to UV light for a total of more than 30 days.

Prevention of Fire Occurring

10.1 Separation or protection must be provided to Ecko FrameFits 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.

External Moisture

11.1 The total building envelope must be weathertight and comply with the requirements of NZBC Clause E2.

11.2 Ecko FrameFits can be used for compliance with NZS 3604, Paragraph 2.3.3 (a) requiring separation between framing timbers and concrete. Air seals must be installed to all exterior frames when using Ecko FrameFits. The air seal must comply with NZBC Acceptable Solution E2/AS1 or covered by a valid BRANZ Appraisal and be installed in accordance with the instructions in the Technical Literature.

Energy Efficiency

12.1 The 12 mm gap created by Ecko FrameFits must be sealed with an air seal complying with either NZBC Acceptable Solution E2/AS1 or covered by a valid BRANZ Appraisal for use around window, door and other wall penetration openings.

12.2 Ecko FrameFits, when installed in accordance with the Technical Literature and this Appraisal, will not impact on the thermal performance of the wall.

Maintenance

13.1 Ecko FrameFits do not require maintenance.

Installation Information

14.1 Installation of Ecko FrameFits must be in accordance with the Technical Literature.

14.2 Ecko FrameFits are installed to the underside of the bottom plate prior to the erection of the structural framing of the wall.

14.3 The orientation of the Ecko FrameFit is dependent on the slab overhang and the size of the bottom plate. Refer to the Technical Literature for the suitable orientation of the Ecko FrameFit for the individual design of the building.

14.4 An air seal complying with NZBC Acceptable Solution E2/AS1 or covered by a valid BRANZ Appraisal must be installed to all exterior walls, including first floor exterior walls, after the framing is erected and before the framing is closed in by external claddings and internal linings.

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BRANZ

In the opinion of BRANZ, Ecko FrameFit 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 Ecko Fastening Systems 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. Ecko Fastening Systems 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 Ecko Fastening Systems 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 Ecko Fastening Systems Ltd or any third party.

For BRANZ

Claire Falck
Chief Executive

Date of Issue:
05 August 2025

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