



BRANZ Appraised

Appraisal No.565 [2007]

BRANZ Appraisals

Technical Assessments of products
for building and construction

BRANZ APPRAISAL No. 565 (2007)

PASLODE STUD / PLATE CONNECTION

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Product

1.1 The Paslode Stud / Plate Connection is an alternative timber stud to plate joint using power driven nails to that prescribed in Table 8.19 of NZS 3604:1999.

1.2 The connection incorporates the use of 90 x 3.15 mm power driven Paslode nails.



Scope

2.1 The Paslode Stud / Plate Connection has been appraised for use as a connection detail in buildings within the following scope:

- buildings within the scope of Section 1.1 of NZS 3604; and
- with a maximum stud height, from the bottom of the bottom plate to the top of the top plate, of 2.7 m.

Building Regulations

3.1 In the opinion of BRANZ, the Paslode Stud / Plate Connection, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the New Zealand Building Code (NZBC):

Clause B1 - STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. The Paslode Stud / Plate Connection meets the requirements for loads arising from imposed gravity loads arising from use, earthquake, snow, wind, impact and time dependent effects [i.e. B1.3.3 (b), (f), (g), (h), (j) and (q)]. See Paragraphs 8.1 and 8.2.

Clause B2 - DURABILITY: Performance B2.3.1 (a) not less than 50 years. The Paslode Stud / Plate Connection meets this requirement. See Paragraph 9.1.

Clause F2 - HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. The Paslode Stud / Plate Connection meets this requirement and will not present a health hazard to people.

3.2 This is an Appraisal of an **Alternative Solution** in terms of New Zealand Building Code compliance.

Technical Specification

Paslode Nails

4.1 The Paslode nails for use with the Paslode Stud / Plate Connection are bright steel, 90 x 3.15 mm nails that are collated together with paper strip and glue, plastic extrusion or welded wire. Only Paslode nail guns, as supplied by Paslode New Zealand, are to be used to install Paslode nails. The Paslode nail guns have not been assessed by BRANZ and are outside the scope of this Appraisal.

Timber Framing

4.2 Timber framing, studs and plates, must be in accordance with the requirements NZS 3604 and NZS 3602, except that the maximum stud height allowed is 2.7 m, and the moisture content of the timber must be less than 16% at the time of joint fabrication.

Handling and Storage

5.1 Paslode nails should be stored in a clean dry area until they are used.

Technical Literature

6.1 There is no specific Technical Literature that relates to this Appraisal. All aspects of design, use, installation and maintenance contained within this Appraisal must be followed.

Design Information

General

7.1 The Paslode Stud / Plate Connection is an alternative power driven nail joint to that specified in Table 8.19 of NZS 3604, where the maximum stud height in the connection, from the bottom of the bottom plate to the top of the top plate, is 2.7 m. The Paslode Stud / Plate Connection joint uses two 90 x 3.15 mm bright Paslode nails end nailed instead of three nails as required by Table 8.19 of NZS 3604.

Structure

8.1 The Paslode Stud / Plate Connection provides adequate stud to plate joint strength to resist loads associated with NZS 3604.

8.2 When required by NZS 3604, the supplementary fixings of Table 8.18 of NZS 3604 are to be used.

Durability

9.1 When installed and maintained in accordance with the specifications and installation instructions in this Appraisal, the Paslode Stud / Plate Connection is expected to have a serviceable life of at least 50 years, compatible with that of the timber framing.

Maintenance

10.1 No maintenance should be required on the Paslode Stud / Plate Connection. In the event of damage to linings or claddings over the Paslode Stud / Plate Connection, these should be repaired immediately.

Installation Information

Installation Skill Level Requirements

11.1 Paslode nails are installed with the aid of Paslode nail guns, and can be done so by any competent person.

Health and Safety

12.1 Guidelines for the safe use of portable mechanically powered nailers and staplers are available from the Department of Labour, and all aspects of these should be followed when using nail guns.

Basis of Appraisal

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

Tests

13.1 The following testing on Paslode nails has been completed by BRANZ:

- Strength testing on stud to plate joints.

Other Investigations

14.1 A durability opinion has been provided by BRANZ technical experts.

14.2 Observations have been made by BRANZ to assess the practicability of installation, and to examine completed installations.

Quality

15.1 The methods of quality control for the manufacture of the Paslode nails has been examined by BRANZ and found to be satisfactory.

15.2 The quality of the nails supplied by Paslode New Zealand is the responsibility of Paslode New Zealand.

15.3 Designers are responsible for the design and specification of the Paslode Stud / Plate Connection.

15.4 Quality of installation of Paslode nails for the Paslode Stud / Plate Connection is the responsibility of the installer.

15.5 Building owners are responsible for the maintenance of their buildings.

Sources of Information

- NZS 3602:2003 Timber and wood-based products for use in building.
- NZS 3604:1999 Timber framed buildings.
- Guidelines for the safe use of Portable Mechanically Powered Nailers and Staplers, Occupational Safety and Health Service, Department of Labour.
- New Zealand Building Code Handbook, Department of Building and Housing, Third Edition May 2007.
- The Building Regulations 1992, up to and including June 2007 amendment.



BRANZ

In the opinion of BRANZ, Paslode Stud / Plate Connection 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 [Paslode New Zealand](#), 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. [Paslode New Zealand](#):
 - 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.
3. 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.
4. 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;
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5. 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.
6. BRANZ provides no certification, guarantee, indemnity or warranty, to [Paslode New Zealand](#) or any third party.

For BRANZ

C Preston
Chief Executive

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