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Certificate no: CMNZ10029 Version: 02 Original issue date: 27 March 2024 Version date: 24 April 2024

1. Certificate Holder Details



ITW New Zealand Ltd t/a Pryda New Zealand 8 Orbit Drive Albany Auckland 0632 Tel: 0800 882 244 Email: info@prydaanz.com Web: http://www.pryda.co.nz

2. Product Certification Body

BRANZ Limited

1222 Moonshine Road RD1, Porirua 5381 Private Bag 50 908 Porirua 5240 **Tel:** 04 237 1170 **Email:** <u>assuranceservices@branz.co.nz</u> **Web:** branz.nz

Complaints: The complaints process for this certificate can be found here: <u>https://www.branz.co.nz/codemark-</u> info/complaints-and-appeals/ <u>https://www.branz.co.nz/codemark-info/complaints-</u> and-appeals/



Product Certificate

Pryda Connectors and Engineered Systems - Timber Connections and Straps

3. Description of Building Method or Product

Pryda Connectors and Engineered Systems - Timber Connections and Straps are a range of metal plate connectors and fixings manufactured from galvanised steel or from stainless steel. For more product details, including product codes, refer to Section 10.

This Product Certificate covers the following Timber Connections and Straps:

- NZ Ceiling and Purlin Hanger
- NZ Cyclone Strap
- NZ FastFix[™] Stud to Wall Plate Screw
- NZ Multigrip
- NZ Strapbrace and Maxi Strap
- NZ Ezi Stud Tie
- NZ Z & U Nails

4. Intended use of Building Method or Product

Pryda Connectors and Engineered Systems - Timber Connections and Straps are designed and manufactured for use as connectors for superstructure connections.

- NZ Ceiling and Purlin Hanger is for connecting timber members located perpendicular to the ceiling joists and are used in pairs to resist wind uplift loads. Their design capacities are dependent on the material and the number of nails used and detailed in the Reference Documents.
- NZ Cyclone Straps are to tie down roof trusses to wall frames to resist wind uplift loads with design capacities dependent on the amount
 of nails used and detailed in the Reference Documents meeting the requirements of NZS 3604. NZ Cyclone Straps can also be used to
 tie down purlins to roof trusses under Specific Engineering Design use.
- NZ FastFix[™] Stud to Wall Plate Screws are used to connect wall top plates to timber studs to resist wind uplift loads with design capacities dependent on the screw length used and it being fixed through a single or double wall plate. These are detailed in the Reference Documents for Specific Engineering Design use.



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- NZ Multigrips are tie-downs for timber framing members perpendicular to each other to resist gravity and wind uplift loads with design capacities for the different load orientations detailed in the Reference Documents for Specific Engineering Design use.
- NZ Strapbrace and Maxi Straps are tension devices for walls and roofs to resist wind loads with limit state design tension capacities dependent on the product used and are detailed in the Reference Documents for Specific Engineering Design use.
- NZ Ezi Stud Ties are to connect timber top and bottom plates to studs or lintels to resist wind uplift loads with a design capacity of 4.6 kN for Specific Engineering Design use.
- NZ Z & U Nails are tie downs for timber purlins to timber rafters, timber rafters to timber top plates, timber joists to timber top plates, and timber joists to timber beams to resist wind uplift loads with a fixing capacity of 4.7 kN in accordance with Table 2.2, fixing type E of NZS 3604.

5. New Zealand Building Code Provisions

COMPLIES WITH THE FOLLOWING PROVISIONS OF THE NEW ZEALAND BUILDING CODE (NZBC)

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4. 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)) (contributes).

Clause B2 DURABILITY: Performance B2.3.1 (a) not less than 50 years and B2.3.2.

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1.

6. Conditions and Limitations of Use

- Applications are limited to timber-framed structures designed in accordance with NZS 3604.
- Pryda Connectors and Engineered Systems Timber Connections and Straps shall be:
 - Used for buildings within the limitations of NZS 3604; and,
 - Product material and corrosion resistance coatings shall be as specified in NZS 3604. The fastener material shall match the material of the selected product; and,
 - o Used in accordance with the limitations stated in the Reference Documents; and,
 - Installed in accordance with the installation instructions detailed in the Reference Documents, in particular, the number, specification and fixing pattern of the fasteners must be followed; and,
 - Used with minimum JD5 timber as defined in NZS AS 1720.1.
- The following product specific limitation shall apply:
 - NZ Ceiling and Purlin Hangers shall be used in pairs only, their design capacity is dependent on the number of nails per leg, as detailed in the Reference Documents.



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- NZ Cyclone Straps design capacities are dependent on the number of nails used per leg, as detailed in the Reference Documents.
- NZ FastFix[™] Stud to Wall Plate Screw:
 - shall not be used as a truss tie-down; and,
 - the capacity is dependent on its length and the use of single or double wall plates. The capacities are detailed in the Reference Documents.
- NZ Multigrips design capacities are dependent on the timber joint group defined in NZS 3604, the number of brackets used, and the load direction. The design capacities are detailed in the Reference Documents.
- NZ Strapbrace and Maxi Strap:
 - act in tension only, their limit state design tension capacity is dependent on the size of the strap and are detailed in the Reference Documents; and,
 - must be applied in pairs. Smaller holes are for NZ Pryda Connector Nails, larger holes are for the tensioners only; and,
 - shall only be used for spans up to 12 m. For spans over 12 m, NZ Pryda Maxi brace shall be used; and,
 - bracing angles shall remain between 30° to 60° and roof angles between 30° to 45°; and,
 - shall be fastened no closer than 10 mm to the edge of the timber.
- NZ Ezi Stud Ties have a design capacity of 4.1 kN per stud tie.
- NZ Z & U Nails shall be used in pairs and within their fixing capacity of 4.7 kN.

REFERENCE DOCUMENTS:

This Product Certificate must be read in conjunction with:

- Pryda Product Data Sheet, NZ Ceiling and Purlin Hanger, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Cyclone Straps, December 2023 V1.02.
- Pryda Product Data Sheet, NZ FastFixTM Stud to Wall Plate Screw, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Multigrips, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Strapbrace and Maxi Strap, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Ezi Stud Ties, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Z and U Nails, December 2023 V1.02.
- Pryda Product Data Sheet, NZ Pryda Connector Screws and Nail, December 2023 V1.02.



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7. Health and Safety Information

Pryda Connectors and Engineered Systems - Timber Connections and Straps are manufactured from galvanised steel or stainless steel. Manufacturer's instructions and typical practices for working with, handling and maintaining these materials should be observed.

8. Basis for Certification

The following evaluations have been carried out on Pryda Connectors and Engineered Systems - Timber Connections and Straps to determine compliance with the NZBC:

- Compliance with NZBC B1 Structure performance requirements was determined by a BRANZ SME through assessing independent test reports of the products against NZS 3604 requirements and claims made within the Reference Documents.
- Compliance with NZBC B2 Durability performance requirements was determined by a BRANZ SME through assessing the scope limitations of the individual components against the material requirements of NZS 3604.
- Compliance with NZBC F2 Hazardous Building Materials performance requirements was determined by a BRANZ SME through assessing the different grades of materials and their uses.
- The Reference Documents have been examined by BRANZ and found to be satisfactory.
- The quality of supply to market is the responsibility of ITW New Zealand Ltd (t/a Pryda New Zealand).
- Building designers are responsible for the design of the building, and for the incorporation of the Pryda Connectors and Engineered Systems Timber Connections and Straps into their design in accordance with this Product Certificate and the Reference Documents.
- Quality of installation is the responsibility of the installer in accordance with the Reference Documents of ITW New Zealand Ltd (t/a Pryda New Zealand).

9. Supporting Documentation for Certification

- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B1 Structure, 1st Edition, Amendment 21, 2 November 2023.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B2 Durability, 2nd Edition, Amendment 12, 28 November 2019.
- Acceptable Solutions and Verification Methods for New Zealand Building Code Clause F2 Hazardous Building Materials, 1st Edition, Amendment 3, 1 January 2017.
- AS/NZS 1789:2023 Metallic and other inorganic coatings Electroplated coatings of zinc with supplementary treatments on iron or steel.
- BRANZ Ltd Structures Test Report TP17360-B-01, Pryda Connection Testing Group B, dated 23 February 2024.
- Ministry of Business, Innovation and Employment Record of amendments Acceptable Solutions, Verifications Methods and handbooks.

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- NZS 3604:2011 Timber-framed buildings.
- NZS AS 1720.1:2022 Timber structures.
- The Building Regulations 1992.

10. Supporting Information About Description

PRODUCT SPECIFICATION

- NZ Ceiling and Purlin Hangers are used to connect timber members crossing at right angles and are manufactured from G300 Z275 steel or Grade 304 stainless steel with a BMT of 0.95 mm. The dimensions are 186 x 25 mm. The NZ Ceiling and Purlin Hangers are to be used in pairs: one left-hand (product code CPH190-LH, or CPH190-LH/S) and one right-hand (product code CPH190-RH/S) and fastened with NZ Pryda Timber Connector Nails. The product is identified on the product packaging label by the product code and product name.
- NZ Cyclone Straps are used to fix purlins to roof trusses, or roof trusses to the wall frame and are manufactured of G300 Z275 steel with a BMT of 0.95 mm. They are available in 588 mm (product code MPQHS6) or 880 mm (product code QHS9) lengths and are fastened with NZ Pryda Timber Connector Nails. The product is identified on the product packaging label by the product code and product name.
- NZ FastFix[™] Stud to Wall Plate Screws are used to secure wall plates in timber-framed buildings and are manufactured from ASI-1022 steel with a yellow zinc chromate coating (to AS/NZS 1789). The dimensions are M8 x 135 mm (product code WM8135PS) or M8 x 175 mm (product code WM8175PS) with a 5 mm hex drive. The product is identified on the product packaging label by the product code and product name.
- NZ Multigrips are multi-purpose metal connectors for timber construction and are manufactured from G300 Z275 steel or Grade 304 stainless steel with a BMT of 1 mm. These are available in the dimensions of 100 x 37 x 37 mm (product code MG or MPMG for G300 Z275; or MG/S for stainless steel), or 132 x 37 x 37 mm (product code MPMGL). The NZ Multigrips are fastened with either NZ Pryda Timber Connector Nails or 12 g x 35 mm NZ Pryda Connector Screws. The product is identified on the product packaging label by the product code and product name.
- NZ Strapbraces and Maxi Straps are bracing straps for roofs, ceilings, walls and floors and are manufactured from G550 Z275 steel or Grade 304 stainless steel with a BMT of 0.8 mm. NZ Strapbraces are 25 mm wide and are supplied in rolls of 10, 15 or 30 m. NZ Maxi Straps are 50 mm wide, 0.8 mm thick and are supplied in rolls of 15 or 30 m. NZ Strapbraces and Maxi Straps are tensioned with Wing Nuts or T-bolt tensioners. The strap braces are fastened with NZ Pryda Timber Connector Nails. The product codes are SB10, SB30, SB10T, SB30T, SB1/15, SBI, SB 15/S and SBI/S. The product is identified on the product packaging label by the product code and product name.
- NZ Ezi Stud Ties connect top and bottom plates to studs or lintels to resist wind uplift and are manufactured from G300 Z275 steel with a BMT of 0.95 mm. The dimensions are 186 x 66 x 30 mm. NZ Ezi Stud Ties have pre-formed claw nails for fastening. The product code is SST (STS25). The product is identified on the product packaging label by the product code and product name.



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• NZ Z & U Nails are tie-downs for holding down purlins to rafters, rafters and joists to plates, or joists to beams and are available in galvanised steel (to NZS 3604:2011, Table 4.2) or Grade 304 stainless steel. The dimensions of Z nails are 100 x 40 mm with a thickness of 5 mm. Z Nails are available in left-hand and right-hand orientation. The product codes are MPZL and MPZR for galvanised steel nails and MPZL/S and MPZR/S for Grade 304 stainless steel. The dimensions of U Nails are 105 x 40 mm with a thickness of 5 mm. The product codes are MPZU for galvanised steel and MPZU/S for Grade 304 stainless steel. The product is identified on the product packaging label by the product code and product name.

Accessories supplied by Pryda New Zealand:

- NZ Pryda Timber Connector Nails are 35 x 3.15 mm and manufactured from galvanised steel or Grade 316 stainless steel. The product codes are OSNBCI/SS or OSNGB. The product is identified on the product packaging label by the product code and product name.
- NZ Pryda Connector Screws are available in 12 g x 35 mm (product code TCS12-35) and 12 g x 65 mm (product code TCS12-65). They are zinc galvanised, Class 3. The product is identified on the product packaging label by the product code and product name.
- Wing Nut and Hex Nut Tensioners are used with NZ Strapbraces and Maxi Straps. Wing nut tensioners are available for 25 mm wide straps in G550, Z275 steel (product code SBT) or for 50 mm wide straps in G300 hot-dip galvanised steel (product code SBI/T). Hex nuts tensioners are available for 50 mm wide straps in Grade 304 stainless steel (product code SBI/TS) or for 25 mm wide straps in Grade 316 stainless steel (product code SBT/SS). The products are identified on the product packaging label by the product code and product name.

11. Supporting Information About Intended Use

INSTALLATION REQUIREMENTS

Installation must be carried out in accordance with the Reference Documents and NZS 3604.

BUILDING CODE

B1 STRUCTURE

Pryda Connectors and Engineered Systems - Timber Connections and Straps will resist structural loads likely to be encountered in normal use.

B2 DURABILITY

Pryda Connectors and Engineered Systems - Timber Connections and Straps, when installed in accordance with the details given in the Reference Documents and NZS 3604, meet code compliance with NZBC Clause B2.3.1 (a) not less than 50 years as a building element that provides structural stability to a building.

F2 HAZARDOUS BUILDING MATERIALS

Pryda Connectors and Engineered Systems - Timber Connections and Straps meet code compliance with NZBC Clause F2.3.1.

12. Supporting Information About Conditions and Limitations of Use

All conditions and limitations provided as stated in this Product Certificate.



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CEO, BRANZ Limited.

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