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Certificate no: CMNZ10031
Version: 01
Original issue date: 27 March 2024
Version date: 27 March 2024

1. Certificate Holder Details

ITW New Zealand Ltd
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Albany
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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: assuranceservices@branz.co.nz
Web: branz.nz

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

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Product Certificate

Pryda Connectors and Engineered Systems – Nail Plates

3. Description of Building Method or Product

Pryda Connectors and Engineered Systems – Nail Plates are a range of metal plate connectors manufactured from galvanised steel, or from stainless steel. For more product details, refer to Section 10.

This Product Certificate covers the following Nail Plates:

- NZ Knuckle Nail Plates – Standard and Coil
- NZ Nail-On Cleat
- NZ Concealed Purlin Cleat
- NZ Nail-On Diagonal Cleat
- NZ Nail-on Plates and Angles
- NZ Strap Nails

4. Intended use of Building Method or Product

Pryda Connectors and Engineered Systems - Nail Plates are designed and manufactured for splicing two adjacent pieces of timber.

- NZ Knuckle Nail Plates – Standard and Coil are for jointing end-butted timber top plates, timber purlins or timber joists; or for end jointing timber members to resist gravity and wind uplift loads with load capacities detailed in the Reference Documents for Specific Engineering Design use.
- NZ Nail-On Cleat is for fixing timber joists to timber bearers perpendicular to each other to resist wind uplift loads with a design capacity of 5.5 kN for Specific Engineering Design use.
- NZ Concealed Purlin Cleat is used to connect timber framing members as detailed in the Reference Documents to resist wind uplift with design capacities detailed in the Reference Documents for Specific Engineering Design use.
- NZ Nail-On Diagonal Cleat is to fix timber beams perpendicular to each other to resist gravity and wind uplift loads with load capacities detailed in the Reference Documents for Specific Engineering Design use.
- NZ Nail-on Plates are to connect end-butted timber framing members to resist gravity and wind uplift loads with load capacities detailed in the Reference Documents for Specific Engineering Design use.

- NZ Nail-on Angles are to connect timber framing members perpendicular to each other to resist gravity and wind uplift loads with load capacities detailed in the Reference Documents for Specific Engineering Design use.
- NZ Strap Nails are for jointing end-butted timber top plates or for connecting timber top plates to external timber wall framing members to resist tensile loads along the plates with load capacities detailed in the Reference Documents for Specific Engineering Design use.
    - MPSN50 and SN50L achieve design capacities of 3 kN and 4.1 kN respectively which is in accordance with NZS 3604 for connecting timber top plates in walls not containing bracing.

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 – Nail Plates shall be:
    - Used for buildings within the limitations of NZS 3604; and,
    - Product material and corrosion resistance coating shall be as specified in NZS 3604. The fastener material shall match the material of the selected product; and
    - 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 Knuckle Nail Plates – Standard and Coils shall be installed symmetrical over the joint with an equal length of connector on each timber member to be joined (a tolerance of ±3 mm is acceptable). Timber must be aligned and end-butted with no gaps before NZ Knuckle Nail Plates are installed.

- NZ Nail-On Cleats are available in left-hand and right-hand orientation and can be used singly or in pairs. Design capacities are dependent on the load direction and the amount of NZ Nail-on Cleats being used and are detailed in the Reference Documents.
- NZ Concealed Purlin Cleats design capacities are dependent on the joint group of truss chord or stud, the use of single or double wall plates, the chosen fixing option and the chosen NZ Concealed Purlin Cleat. The design capacities are detailed in the Reference Documents.
- NZ Nail-On Diagonal Cleats shall be used in pairs. The characteristic strength loads are dependent on the timber joint group and are detailed in the Reference Documents.
- NZ Nail-on Plates shall be installed symmetrically over the joint with an equal length of connector on each timber member to be joined (a tolerance of ±3 mm is acceptable). Timber must be aligned and end-butted with no gaps before NZ Nail-on Plates are installed. Design capacities are dependent on the plate used and are detailed in the Reference Documents.
- NZ Nail-on Angles shall be used in pairs. Timber must be aligned and end-butted with no gaps before NZ Nail-on Angles are installed. Design capacities are dependent on the fixing method used and the load case and are detailed in the Reference Documents.
- NZ Strap Nails must be positioned centrally over the joint line with an equal length of the plate on either side (a tolerance of ±3 mm is acceptable). Gaps between the timber to be joined shall be no larger than 3 mm. Timber joining edges shall be free from timber defects such as knots, wanes, checks, shakes and splits. Design capacities are detailed in the Reference Documents.

Reference Documents:

- Pryda Product Data Sheet, NZ Knuckle Nail Plates – Standard and Coils, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Nail-On Cleat, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Concealed Purlin Cleats, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Nail-On Diagonal Cleats, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Nail-on Plates and Angles, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Strap Nails, December 2023 – V1.02.
- Pryda Product Data Sheet, NZ Pryda Connector Screws and Nail, December 2023 – V1.02.

7. Health and Safety Information

Pryda Connectors and Engineered Systems – Nail Plates 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.

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8. Basis for Certification

The following evaluations have been carried out on Pryda Connectors and Engineered Systems - Nail Plates 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 - Nail Plates 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

- AS/NZS 3604:2011 Timber-framed buildings.
- 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.
- BRANZ Ltd Structures Test Report TP17360-D-01, Pryda Connection Testing Group D, dated 23 February 2024.
- Ministry of Business, Innovation and Employment Record of amendments – Acceptable Solutions, Verifications Methods and handbooks.
- NZS AS 1720.1:2022 Timber Structures.
- The Building Regulations 1992.

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10. Supporting Information About Description

Product Specification

- **NZ Knuckle Nail Plate – Standard and Coils** are used to join, splice, or reinforce timber components and are manufactured of G300 Z275 steel with a BMT of 1 mm. They have pre-punched knuckle nails and are available in the dimensions listed in below table. The product is identified on the product packaging label by the product code and product name.

Product Code	Length	Width	Product Code	Length	Width	Product Code	Length	Width
Knuckle Nail Plate			Knuckle Nail Plate			Knuckle Nail Plate		
MP2R4	63 mm	33 mm	MP8R5	254 mm	38 mm	MP10R10	317 mm	76 mm
MP2R5	63 mm	38 mm	MP4R10	127 mm	76 mm	MP4R16	127 mm	134 mm
MP4R5	127 mm	38 mm	MP6R10	190 mm	76 mm	MP6R16	190 mm	134 mm
MP6R5	190 mm	38 mm	MP8R10	254 mm	76 mm			

Product Code	Length	Width
Knuckle Nail Plate Coils		
NCR10	12.7 m	76 mm
NCR160	8.45 m	135 mm

- **NZ Concealed Purlin Cleats** are used to connect trusses/rafters to beams and wall plates and are manufactured from G300 Z275 steel or Grade 304 stainless steel with a BMT of 2 mm. They are fastened with NZ Pryda Connector Screws or 14 g x 75 mm Type 17 Hex Head Screws. They are 2 mm thick and available in three sizes (width x height x depth): 40 x 80 x 30 mm (product code NPPC4 for galvanised and NPPC4/S for stainless steel), 60 x 85 x 30 mm (product code NPPC6 for galvanised and NPPC6/S for stainless steel), and 80 x 85 x 30 mm (product code NPPC8 for galvanised and NPPC8/S for stainless steel). The product is identified on the product packaging label by the product code and product name.
- **NZ Nail-On Diagonal Cleats** are used to connect two timber members at 90° and are manufactured from G300 Z275 steel with a BMT of 1 mm. The dimensions are 90 x 215 x 90 mm (product code NPD) and they 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 Nail-On Cleats** are used to join timber at right angles and are manufactured from Grade 304 stainless steel with a BMT of 0.9 mm. The dimensions are 150 x 50 x 50 mm (length x width x height) with the product code NPD150/63/S. They are fastened with stainless steel NZ Pryda Timber Connector Nails. The product is identified on the product packaging label by the product code and product name.

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- **NZ Nail-on Plates and Angles** are used for joining or connecting timber and are manufactured from G300 Z275 steel with a BMT of 1 mm or Grade 304 stainless steel and a BMT of 0.9 mm. The NZ Nail-on Plates and Angle are fastened using NZ Pryda Timber Connector Nails and are available in the dimensions listed below. The product is identified on the product packaging label by the product code and product name.

Product Code	Width	Length	Product Code	Width	Length	Product Code	Width	Length
G300 Z275			G300 Z275			G300 Z275		
NPA75/125	75	125	NPA100/190	100	190	NPB75/380	75	380
NPA75/190	75	190	NPA100/315	100	315	NPB25 BAR	75	1,260
NPA75/250	75	250	NPA150/315	150	315	NPB100 BAR	100	1,260
NPA75/315	75	315	NPA *(angle)*	100	190	NPB150 BAR	150	1,260
NPA75/380	75	380						

Product Code	Width	Length	Product Code	Width	Length
Stainless steel 304			Stainless Steel 316		
NPA75BAR/S	75	1,260	NPA100/190SS	100	190
NPA100BAR/S	100	1,260			
NPA150BAR/S	150	1,260			

- **NZ Strap Nails** are claw nails that are used to connect timber components and are manufactured from G300 Z275 steel with a BMT of 1 mm. They are available in three sizes: 100 x 25 mm (product code SN25), 100 x 50 mm (product code MPSN50, SN50), and 150 x 50 mm (SN50L). The product is identified on the product packaging label by the product code and product name.

Accessories supplied by Pryda:

- **NZ Pryda Timber Connector Nails** are 35 x3.15 mm and are manufactured from galvanised steel or Grade 316 stainless steel. The product codes are OSNGB or OBSNBCI/SS. 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.

Accessories supplied by others:

- **Hex Head Screws** 14 g x 75 mm Type 17.

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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 - Nail Plates will resist structural loads likely to be encountered in normal use.

B2 DURABILITY – Pryda Connectors and Engineered Systems - Nail Plates, 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 - Nail Plates 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.

Signatures

Claire Falck
CEO, BRANZ Limited.

All CodeMark certificates that are current much be registered with MBIE. MBIE maintains a register of valid product certificates. Please find the register here.

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.