

## PROLAM H5 POSTS

### PURPOSE

Prolam H5 posts are glue laminated structural posts that are manufactured from finger jointed lamina that are individually treated to H5. They can be supported on a structural bracket above ground or cast below ground, in a concrete foundation.

### EXPLANATION

Prolam H5 posts are manufactured using NZ grown Pinus Radiata. They are third party certified by AsureQuality to AS/NZS 1328, part 2 or AS 1720.1:2010, but branded with the prefix PL.

They are supplied in:

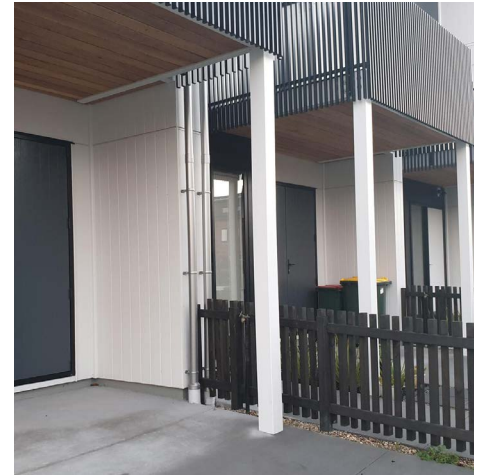
- a range of sizes
- structural grade PL8, PL17
- appearance grades A
- treated to hazard class H5 (CCA).

Individual treatment of the 40mm thick lamina to NZS 3640:2003 ensures that the penetration and retention of the Prolam posts, exceeds the level achieved with larger sections of solid timber. It also demonstrates that the lamination/finishing steps will have no effect on the penetration or retention achieved.

Given the size of the individual lamina, this has the effect of achieving a penetration greater than solid lumber where the solid lumber's dimensions exceed 60 mm in thickness as per the following diagram. It demonstrates that the lamination/finishing will have no effect on the penetration or retention achieved.

Where used in-ground, the post must be fully encased in concrete to ground level. This ensures that the structural performance and durability of a post is maintained.

When used in accordance with Prolam's installation, care and maintenance instructions, the Prolam H5 posts will not warp, twist or delaminate.

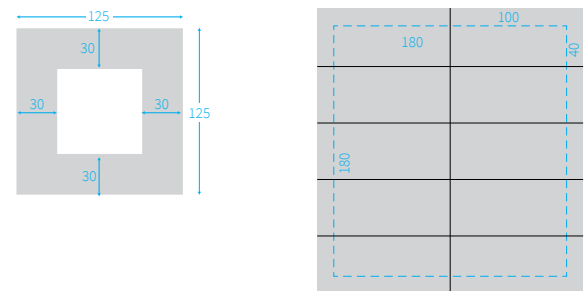


For further assistance please contact:

- ☎ 03 526 7436
- ✉ info@prowoodnz.com
- 🌐 [www.prolamnz.com](http://www.prolamnz.com)



Figure 1: Required penetration as required by NZS3640, dark grey shows penetration.



Senton Piles

Prolam H5 Post

### SCOPE AND LIMITATIONS OF USE

Scope	Limitations
<b>Building</b>	
In accordance with NZS 3604:2011 or specifically engineered to NZS 3603:1993 and AS 1720.1:2010.	<ul style="list-style-type: none"> <li>➤ Prolam H5 posts must not be ripped where this would result in a reduction in the number of lamina. Dimensional stability and strength relies on the width and thickness remaining unchanged.</li> <li>➤ Fixing material to be in accordance with section 4, NZS 3604:2011.</li> <li>➤ Where NZ Building Code clause C3 applies, the use of Prolam H5 posts is subject to specific design by a fire engineer.</li> </ul>
Above and below-ground applications.	<ul style="list-style-type: none"> <li>➤ Above ground, the post must be attached to a structural bracket that will resist all applied loads.</li> <li>➤ Where installed below ground, the post must be: <ul style="list-style-type: none"> <li>• sealed (in-ground portion only),</li> <li>• seated on a punch pad of a 100 mm, and</li> <li>• fully encased in concrete with a minimum 100 mm side cover.</li> </ul> </li> </ul>


### USEFUL INFORMATION

For information on the design, installation and maintenance of Prolam H5 posts and for our warranty, refer to [www.prolamnz.com](http://www.prolamnz.com).



## PERFORMANCE CLAIMS

If designed, installed and maintained in accordance with all Prowood Ltd requirements, the Prolam H5 posts will comply with or contribute to compliance with the following performance claims.

NZ Building Code clauses		BASIS OF COMPLIANCE	
Code clauses	Compliance statement <sup>1</sup>	Demonstrated by	
<b>B1 Structure</b> B1.3.1 B1.3.2 B1.3.3 (b, g, h, j) B1.3.4	Product Certification CodeMark Certificate BRANZ-CM-1018 2/12/2019	 <ul style="list-style-type: none"> <li>➤ CodeMark Certificate issued by BRANZ.</li> <li>➤ BRANZ is an accredited product certification body under section 263 of the Building Act 2004.</li> </ul>	
<b>B2 Durability</b> B2.3.2(a)			
<b>F2 Hazardous Building Materials</b> F2.3.1			
<b>C6 Structural Stability</b> C6.3 C6.4	ALTERNATIVE SOLUTION NZS 3603:2011, clause 9.4.2	<ul style="list-style-type: none"> <li>➤ NZS 3603:1993, clause 9.4.2 specifies charring rate of radiata pine and other timber species of approximately the same density to be taken as 0.65 mm/min.</li> <li>➤ APA Evaluation of Char Rate (ASTM E119), TT-118 January 2015.</li> <li>➤ Glue laminated timber elements have a fire performance comparable to solid wood members of equivalent size; Timber Industry Federation New Zealand Timber Design Guide 2007.</li> </ul>	

1. The Compliance Statement is the pass holder's statement that they have met their obligations under s14G(2) of the Building Act 2004.

## BASIS OF CERTIFICATION

### Technical

- Guidance for specific engineering design using Prolam H5 Glue Laminated Posts.
- NZS 3604:2011 section 4, Steel fixings and fasteners.
- AS 3730:2006 parts 7, 8, 9 and 10 Guide to the properties of paints for buildings.
- AS/NZS 1328:1998 Glue laminated structural timber.
- AS/NZS 1170 Structural Design actions.

### Quality

- BRANZ Limited. Audit of Prowood manufacturing facilities.
- BRANZ Limited. Review and audit of Prowood Quality Plan and associated manufacturing.
- Prolam Structural Timber Guide - 2019.

### Buildability

- BRANZ Limited. NZ site audits

## OTHER SOURCES OF INFORMATION

- NZS 3603:1993, clause 9.4.2, Charring rate of Radiata pine.
- ASTM E119: 2015, TT-118 Elevation of Char Rate.
- Timber Industry Federation, NZ Timber Design Guide:2007 Glue Laminated Timber fire performance

## OTHER CERTIFICATIONS AND APPROVALS HELD BY PROWOOD LTD

- AsureQuality Engineered Wood Products Programme (AEWP) Reg no: AEWP05/Certificate No: 03, 3/7/2017.
- Certificate of Registration of Preservative Treatment & Allocated Brand 709 90 H5, 709 01 H5, 708 89 H5, 1/7/18.

**VERSION:** V3.1      **DATE:** 28/01/2020

*Note: Uncontrolled in printed format.*

**NAME:** John Woodman

**POSITION:** Managing Director

Signed on behalf of Prowood Ltd:

**John Woodman**  
Digitally signed by John Woodman  
Date: 2020.01.28 14:40:40 +13'00'

By signing this pass™ the signatory confirms that, in respect of the subject of this pass™, the company has met their s14G obligations under the Building Act 2004.



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