

Techlam Glulam Laminated Timber Products

TECHLAM GLULAM TECHNICAL DATASHEET

Version 1.0 April 2025

WOOD SPECIES

- Pinus Radiata (origin New Zealand).
- Pinus Taeda (origin Uruguay).
- Picea Abies (Sprucelam) (origin Europe).

SUSTAINABILITY

- Timber sourced from FSC certified suppliers. Our location is also certified according to FSC - Chain of Custody, by SGS certificate number SGSHK-COC-510001.
- Declare Label (TLM – 0001). Red List approved compliant (where applicable).

APPLICATIONS

- Structural beams, posts, columns, and flooring.
- Interior and exterior applications, above and in-ground uses.

PRODUCT STANDARDS & THIRD-PARTY CERTIFICATION

Attribute	Standard	Certification
Finger-jointing	AS 5068.2006 (R2016) Timber - Finger joints in structural products - Production requirements	Bureau Veritas License # 2930
Glue Lamination	AS/NZS 1328.1:1998 Glued laminated structural timber Part 1: Performance requirements and minimum production requirements	Bureau Veritas License # 2930
Treatment	NZS 3640:2003 Chemical Preservation of Round and Sawn Timber	Supplied by third party providers who are third party certified to the treatment standard.

APPEARANCE GRADES As defined in AS/NZS 1328.1:1998

A	All surface voids filled or repaired. Unless it is specified otherwise, surfaces sanded to a minimum of 60 grit finish. The following voids shall be repaired with inserts and not filled: (a) Holes (circular in general appearance) with a diameter in excess of 30mm. (b) Holes (elongated in general appearance) with dimensions exceeding 40mm x 20 mm. (c) Edge checks (elongated) from 40mm to 100mm, exceeding 3mm wide.
B	Machining to No. 2 dressed surface grade as defined in the AS 2796 series. Occasional skips in the surface, minor blemishes, voids and manufacturing want shall be acceptable. Outer-most laminations free of loose knots and voids.
C	All blemishes and voids are acceptable.

DIMENSIONS

POSTS

- Size & thickness: 88mm - 270mm.
- Ezipost supplied in set lengths.

BEAMS

- Size: 135mm – 540mm
- Thickness: 42mm – 180mm

GENERAL

- Any length cut to nearest 100mm.
- Larger dimensioned products available by request

STRENGTH GRADES

Glulam Grade	Characteristic strengths (MPa)				Elastic Moduli (MPa)	
	Bending	Tension parallel to grain	Shear in beam	Compression parallel to the grain	Short duration average modulus of elasticity parallel to the grain	Short duration average modulus of rigidity for beams
	f'_b	f'_t	f'_s	f'_s	E	G
GL8	19	9.0	3.7	21.6	8000	530
GL10	22	9.9	3.7	23.4	10000	670
GL12	25	11.3	4.2	26.1	11500	770

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HAZARD CLASSES Hazard class as defined in NZS 3640:2003

Hazard class	Description of conditions	Treatment options
n/a	Above ground, protected from weather & dampness.	Untreated, but kiln dried to 12 - 18%
H1.2	Above ground, protected from the weather, but a possibility of exposure to moisture that may lead to a risk of moisture content conducive to decay.	Boron
H3.2	Periodic wetting, exposed to the weather, above ground, or protected from the weather but with a risk of moisture entrapment.	Copper chromium arsenate (CCA) Micronised copper azole (MCA) Protim Micro (LOSP)
H5	Exposed to the weather, in ground or in fresh water and use requires additional resilience.	Copper chromium arsenate (CCA) Micronised copper azole (MCA)

MANUFACTURING**BONDING**

- Type I adhesive to AS/NZS 4364 (Timber – Bond performance of structural adhesives).
- Resorcinol
- 1C polyurethane (PUR)

LAMELLA THICKNESS

- Maximum lamella thicknesses: 45mm
- For curved/arched special components: for curve lamella thickness from 8 - 45 mm

DISPATCH MOISTURE CONTENT

- Target 16 % \pm 2.5 %

DESIGN DENSITY

- For Pinus species and Sprucelam, approximate range 350 - 500 kg/m³ at 12% moisture content

FIRE BEHAVIOUR & RESISTANCE

- D-s2, d0, material group 3
- 2.2 kW/m² when used as floor covering (MBIE, C/VM2)
- Char rate 0.65 mm/min (BRANZ Study Report No. 42)

FORMALDEHYDE EMISSION CLASS

- PUR – super E⁰
- Resorcinol – super E⁰

DIMENSIONAL TOLERANCES

Characteristic	Techlam tolerance
Width	\pm 2 mm
Depth	+ 3 mm/305 mm of depth (or part thereof) - 5 mm or 2 mm/305 mm of depth (or part thereof) and whichever is the larger.
Length	\leq 6.0 m \pm 2 mm > 6.0 m \pm 2 mm / 6.0 m (or part thereof)
Straightness (excluding any precamber)	6.0 m 1 mm/m length 6.0 – 12 m total max 9 mm 12 m – 18 m total max 12 mm 18 m – 24 m total max 15 mm 24 m – 30 m total max 18 mm > 30m total max 19 mm Not applicable to curved members
Squareness of cross-section	Maximum deviation from right angle 1:50