Techlam Glulaminated Timber Products

TECHLAM GLULAM TECHNICAL DATASHEET

Version 3.0 July 2025

TECHNICAL

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, as a minimum.

Appearance Grade A	**Sanded Beams & Premium Posts** Intended for uses where appearance is important and the members are intended to be clear or paint finished. All finished beam/post faces shall be free of loose knots and voids. All surface voids filled or repaired. Unless it is specified otherwise, surfaces sanded to a minimum of 80 grit finish. The following voids shall be repaired with fillets or knots. (a) Holes (circular in general appearance) with a diameter > 15 mm. (b) Holes (elongated in general appearance) with dimensions > 40 mm x 20 mm. (c) Edge checks (elongated) 40 mm - 100 mm, > 3 mm wide. **Planer gauged, EZIPOST™** Supplied with a machine finish only. On-site minor sanding and filing may be required to provide a good visual finish. It is not necessary tor EZIPOSTs™ to be sanded on site. All finished members shall be free of major chips and glue line marks, corners to have a consistent 5 mm arris. Small defects or knots are not repaired. The following dimensioned voids or loose knots are repaired as follows: (a) Loose knots/holes 10 – 15 mm are spot filled and sanded (b) Holes (circular in general appearance) with a diameter > 15 mm are filled with fillets or knots. (c) Holes (elongated in general appearance) with dimensions > 40 mm x 20 mm are filled with fillets or knots. (d) Edge checks (elongated) from 40 mm to 100 mm, > 3 mm wide are filled with fillets or knots. **Bandsawn** Bandsawn finish is suitable for intended use. All finished members shall be free loose knots. Small defects or knots are not repaired. The following dimensioned voids or loose knots are repaired as follows: (a) Loose knots/holes 10 – 15 mm are spot filled and sanded (b) Holes (circular in general appearance) with a diameter > 15 mm are filled with fillets or knots. (c) Holes (elongated in general appearance) with dimensions > 40 mm x 20 mm are filled with fillets or knots. (d) Edge checks (elongated) from 40 mm to 100 mm, > 3 mm wide are filled with fillets or knots.

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table continues

Appearance Grade B	**Utility (non-visual)** Suitable for uses where surface appearance is not important and will not be see. A machine planed finish is acceptable. Blemishes and voids that do not affect the structural performance are acceptable and do not need to be repaired. Occasional skips in the surface and manufacturing wanes are acceptable. Maximum total wane and knot hole depth cannot exceed ¼ the thickness of the member and wanes must be > 500 mm in length.

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

	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
Glulam Grade	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

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)

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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 % ± 2.5 %

DESIGN DENSITY

- For Pinus species and Sprucelam, approximate range 350 - 500 kg/m^3 at 12% moisture content

FORMALDEHYDE EMISSION CLASS

- PUR – super E^0
- Resorcinol – super E^0

FIRE BEHAVIOUR & RESISTANCE

- D-s2, d0, material group 3
- 2.2 kW/m^2 when used as floor covering (MBIE, C/VM2)
- Char rate 0.65 mm/min (BRANZ Study Report No. 42)

DIMENSIONAL TOLERANCES

Characteristic	Techlam tolerance
Width	± 2 mm
Depth	+ 3 mm/305 mm of depth - 5 mm or 2 mm/305 mm
Length	≤ 6.0 m ± 2 mm > 6.0 m ± 2 mm/6.0 m or part thereof
Straightness (excluding any precamber)	≤ 6.0 m 1mm/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
Flooring (42 mm and 65 mm)	<15mm / 2.4m length
Squareness of cross-section	± 3mm/305 mm of depth

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