

DATA SHEET

Glulam Beams



Overview

Structural support to roofs and floors can be simply and attractively achieved using Red Stag TimberLab Glulam Beams. Factory-made to give clear span lengths, the dimensions of these members are designed to give maximum economy in size and cost (see load table over). Finger jointed laminations maintain high strength and eliminate weak defects. The unique TimberLab finger jointing system allows the fullest use of long lengths of timber and avoids the large concentration of finger joints that often occur in other systems. The average distance between joints in one lamination can be up to 2.5m. A variety of finishes are available (see over) from utility off the planer to flush filled and sanded. Load bearing beams can be pre-cambered to compensate for deflections.

These standard beams can be accurately cut to length and arrive on site sealed or stained, ready for erection.

Laminated posts are also available. Manufactured for interior or exterior use, these members provide a stability that is not possible in standard timber.

Applications

Domestic: Exposed roof beams, rafters, floor beams, lintels, veranda beams, deck beams, pergolas.

Commercial: Office space, reception areas, hotel foyers, grandstands, walkways, canopies etc.



Industrial: Post and beams, strong durable free span members. A-frame storage buildings.

Multi-Storey: Apartments and commercial building use, light weight post and beam design.

Standard Sizes

Length: can be manufactured to suit individual requirements, up to a length of 35mtrs.

Width: 42mm, 65mm, 90mm, 115mm, 135mm, 180mm, 230mm. Other widths can be manufactured on request.

Depth: increasing in 45mm increments. E.g. 135mm, 180mm, 225mm, 270mm etc. Other specific depths can be manufactured on request.



Structural Properties

Characteristic Strengths (MPa)				Elastic Moduli (MPa)		
GL Rating	Bending	Tension Parallel to the Grain	Shear in Beam	Compression Parallel to the Grain	Short Modulus of Elasticity Parallel to the End Grain	Short Duration Modulus of Rigidity for Beams
GL12	25	12.5	3.7	29	11500	770
GL10	22	11	3.7	26	10000	670
GL8	19	10	3.7	24	8000	530

The above Glulam table of structural grade characteristics is referenced from AS/NZS 1328, part 2

Specifications

Timber

New Zealand Pine (Radiata), New Zealand Douglas Fir. Other timbers can be manufactured as requested.

Moisture

12%-18% Kiln Dried.

Treatment

Interior: H1.2.

Exterior- H3.2 (Not possible in Douglas Fir); for posts in ground use H5 CCA.

Adhesives

Interior- Polyurethane (PUR).

Exterior or high humidity- Resorcinol.

Pre-camber

1/400 or as required by design engineer.

Appearance

- Exposed surfaces filled and sanded- suitable where appearance is important.
- Utility planer finish - surface blemishes permitted -suitable for industrial or elevated situation.
- Special finishes such as band sawn are available on request

Protection

Refer to Red Stag TimberLab's Datasheet – Onsite Care.

