DATA SHEET

Bridges

Overview

The technical properties of timber- its durability, high strength to weight ratio and cost effectiveness, combined with its aesthetic appeal in any environment, makes timber an ideal material for bridge building. Modern techniques of preservative treatment and finishing ensure long life with correct maintenance. Glue laminated members made from small section boards, glued and layered up horizontally, enable large spans to be achieved. Indeed, any size of cross section and length of member can be produced by glue lamination - the practical limiting factors are transport and manufacturing facilities.

The durability of treated Glulam is ideally suited for the rigorous demands of road and foot bridges. In straight lengths of large sections required for heavily loaded road bridges or in more slender curved shapes for foot bridges; Glulam beams provide for complete flexibility of form. Treated to H3.2 or H5, this rot resistant timber is matched by the use of Resorcinol water-proof glue to provide a long-life, maintenance-free structure. With an appropriate surface coating protection against moisture ingress, Red Stag TimberLab Glulam bridges answer a large variety of bridging needs.

Benefits

» **Prefabrication** – Red Stag TimberLab's bridges can be prefabricated, ready for simple installation onsite.

» **Durability** – Treated glulam will not rust or corrode, maintaining its long-term structural performance, reducing onsite maintenance.

» **Speed** - Pre-cut and drilled components are easily and speedily assembled and erected.

» **Convenience** – Simple nailed or bolted fittings can be carried out without specialist procedures.

» **Environmental** - An environmentally responsible choice

» **Lightweight** – Dry seasoned timber provides lightweight structural beams. Craning and

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Specification

» Timber- Standard Species, Radiata Pine timber is graded to conform to ASNZS 1328.2 Table 1.2

» Adhesives - Resorcinol.

» Finish – Utility, planer finish. Some lower surface permitted - suitable for industrial and utility applications.

» Protection - If moisture is allowed to penetrate Glulam beams, some splitting may occur. To avoid this, please consult a coating specialist.

» Treatments - Ground Contact: Where beams are in contact with ground, H5 treatment should be specified. Avoid soil and debris build up at end of beams.
No Ground Contact: Where the beams are not in contact with the ground, H3.2 treatment can be specified.

Indicative Bridge Span Tables

Span (M)	Bridge Width (M)		
	1.0	1.5	2.0
6.0	270x90	360x90	405x90
8.0	360x90	450x90	495x90
10.0	450x90	495x115	585x115
12.0	540x115	585x115	675x115
14.0	630x115	720x115	765x115
16.0	855x135	855x180	900x180
18.0	990x230	1035x230	1080x230
20.0	1170x230	1215x230	1260x230

Nothing contained in this material shall be construed as a warranty or otherwise as to the accuracy or safety of the information provided. Specific design work should be carried out by qualified Engineers.

Quality Control

Red Stag TimberLab Ltd is a licensed manufacturer, independently audited under AS/NZS 1328.1 for glulam manufacturing (License No. 2916) and AS5068 for finger jointing (License No. 2915).

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