



MAGNA GL13 FINGER JOINT LAMINATED POSTS

Handling & Installation Guidelines

Introduction

Magna Finger Jointed Laminated products are manufactured to perform in applications where a combination of both Structural and Visual characteristics are required.

Magna Finger Jointed Laminated products are made exclusively with selected Kiln Dried (Moisture content less than 15%) Merbau (Intsia bijuga), which has a natural above ground durability rating of 1 (effective life expectancy of more than 40 years).

Magna Finger Jointed Laminated products use phenolic adhesives which are not only durable but heat proof, waterproof and chemical and fungal resistant.

Magna Finger Jointed Laminated products are termite resistant and fire resistant and are manufactured to Australian Standards (AS1328 – Glued Laminated Timber) and accredited by the GLTAA (Glued Laminated Timber Association of Australia) with third party quality assurance certification to ensure consistent quality and performance.

Magna Finger Jointed Laminated products are Service Class 3 and suitable for external use. Service Class 3 is characterised by climatic conditions leading to higher moisture content, or where the timber is directly exposed to sun and/or rain.

All Magna Laminated posts must be used in above ground applications and should be installed and maintained appropriately to ensure their on-going performance and appearance. Please refer to the Installation Guide for further details.



Meets Rainforest Alliance standards for Verified Legal Origin

Verification Code: SW-VLO-004974



The mark of responsible forestry



SGS-TLTV/COC-0019

SGS-GEN/COC-0016

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As with all timber products their performance in weather exposed applications is dependent on compliance with these specifications.

All laminated *Magna* GL13 Posts must be used in ***above ground applications***.

On Site Handling

Storage

All *Magna* Finger Joint Laminated products should be stored on evenly supported blocks at least 100mm above ground, allowing for good drainage and ventilation.

All *Magna* Finger Joint Laminated products should be kept dry by either storing under cover or securely covering with a suitable weather proof material.

All *Magna* Finger Joint Laminated products should be handled with care to ensure that the dressed finished surfaces are not damaged and the structural integrity of the post or handrail is not compromised. In addition, they **should not be dropped, jarred or dragged** as this may adversely affect their performance.

Design

Joint detailing, where possible, should follow the following principles:-

Horizontal contact areas should be kept to a minimum in favour of self-draining vertical surfaces.

Use only compatible fasteners that have adequate corrosion resistance and do not cause splitting when installed (eg stainless steel or hot dipped galvanized steel).

Wherever possible, joint surfaces should be ventilated using spacers. Ensure that all joints have adequate drainage to prevent moisture being trapped in the joint. The use of damp proof membranes is recommended where the product is in contact with porous materials like masonry and/or concrete.

Make allowance for any thermal expansion and contraction in the joint design.

The use of rounded or arrised edges is recommended as this reduces the chance of any coating failures on sharp square edges.

General Design Guidelines

All Finger Joint Laminated products should be installed with allowances for adequate ventilation to ensure moisture content within the product does not exceed 15% and moisture gradients do not occur.

Designs should include measures to mitigate exposure to direct sunlight and moisture pooling and promote rapid shedding of moisture.

Exposed ends of GL13 posts must have capping installed to prevent splitting on the end grain.

Horizontal holes for fixing should follow the guidelines as per diagram 4

Holes should not be greater than 25mm diameter. If a hole is required with a diameter larger than 25mm, advice from a suitably qualified structural engineer is required.

Service Holes should be restricted to the middle third of the post.

Vertical holes for plumbing or electrical services are not recommended, advice from a suitably qualified structural engineer is required.

ALL surfaces (including the end grain and any concealed joints) should be primed/sealed and/or coated **prior** to installation.

Coating

Protective finishes will prolong the service life of the post.

If Painting – One coat of quality oil based primer is to be applied to all surfaces **prior** to the installation of the product. Oil based paint systems will provide the best long term protection of the post.

Oil Based – Exterior Solid Colour Oil Based Finish. One coat of oil based primer, followed by one coat of oil based undercoat, followed by two coats of the exterior oil based finish (or otherwise as per the paint manufacturers recommendations).

Acrylic – Exterior Solid Colour Acrylic Finish. One coat of oil based primer, followed by two coats of the exterior acrylic finish (or otherwise as per the paint manufacturer's recommendations).

If Oiling/Staining - One coat of quality penetrating oil is to be applied to all surfaces **prior** to the installation of the product. Following installation, 2 further coats of penetrating oil are recommended (or otherwise as per the oil manufacturer's recommendations). Annual application of penetrating oil is recommended to ensure adequate protection is achieved.

Ongoing inspection and maintenance programme is essential.

The inspections should focus on the level of exposure, all joints, fasteners, horizontal surfaces and end grain, as well as following any paint and/or oil manufacturers recommendations!

Additional Information

Fire Resistance – Merbau is naturally fire resistant and is suitable for use in fire rated buildings. Extensive fire test data shows that large end section timber posts perform well in fire situations due to the formation of a protective layer of char. This charred area inhibits the effects of the fire on the inner portion of the timber posts, hence it maintains structural load support for measurable periods of time as the fire progresses. The glue used in the construction of the *Magna* posts is also resistant to fire, the gluelines will remain unaffected in the un-charred portion of the laminated beam.

Termite Resistance - Merbau is also naturally termite resistant, generally no additional chemical treatment is required.

Extreme Weather Areas – GL13 products are **NOT** suitable for external applications in extreme weather areas such as Ski Resorts and Dry Desert Areas.

Stainless Steel Wire Balustrade – Where stainless steel wire balustrade is to be installed the following guidelines **MUST** be adhered to or all product guarantees will be void. Screw type fixings are **not** to be used - all fixings must be a bolt through type similar to the “Otter” Ezy Fix Balustrade System.

Further information can be obtained from the Glue Laminated Timber Association of Australia (GLTAA) – www.gltaa.com