

Engineered Hardwood Structural & Architectural Solutions



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Lamintsia

Laminated “Intsia” (the genius of the Merbau species), is a thrilling new-engineered hardwood product range. Lamintsia is suitable for a variety of applications from exposed structural members to internal architectural applications.

Lamintsia allows designers the liberty to create curved, lightweight yet strong and durable structures; breaking new ground in hardwood engineered structures as a fully engineered cutomised product.

All Lamintsia products, are sourced from certified sources.



Lamintsia Materials

Merbau Instia Bijuga

A very versatile high quality hardwood from a wide variety of South East Asia forest concessions. Suited for bridges, cabinet making, paneling, joining & flooring. Key advantages are its durability (does not require any preservatives) and its impressive stability (comparable to Teak)

Certification

Our Merbau is sourced from over 1 million hectares of forest concisions in South East Asia and Certified as “Known legal” in accordance with internationally recognized standards applicable at the country of export.

Chain of custody and legal certification is provided by certisource U.K Ltd, Certisource use the only DNA science based chain of custody system worldwide.

Hardwood Lamination

Hardwood laminated components are relatively recent and were first introduced in 1995 utilising durable Red Maple and mainly used in highway bridge construction.

It is more difficult to successfully laminate hardwood than softwood as hardwood fibers are much denser and therefore require very strong adhesives often heat and

pressure processes to meet glue lam bonding standards.

Lamintsia has been developed on these principals, utilising the largest and most advanced heat and pressure lamination press in South East Asia.

Continuing development, at our integrated manufacturing, research and testing facility has enabled us to produce long, curved very stable Merbau laminated components for a variety of external and internal applications

Benefits of Glue Lamination

- High strength to weight ratio and much higher than equivalent laminated softwood members.
- Corrosion resistant.
- Dampener against noise.
- Very stable, will not dry and crack like solid timber.
- Resistant to chemicals and aggressive environments.
- Lengths and dimensions of products are varied.
- Ability to produce exciting curved architectural shapes.
- Low specific gravity easing cost of substructure.

Products

Small Section Laminated Members

- Solid Merbau Laminated section combining of up to 12mm thick laminated layers.
- Klin dried to <12% average moisture content.
- Sizes: Normal section sizes up to 130 x 130mm
Common section sizes up to 90 x 90mm
- Lengths: Up to 12m long

Small Section Curved Laminated Members

Curvature

- 6m radius available for 90 x 90mm sections.
- 9mm radius for 130 x 130mm (sections two way curves available upon request)

Lamination

- Hot press machine laminated using high strength marine resorcinol adhesive.

Large Section laminated Members

- Laminated veneer lumber core combined with solid merbau outer layer (Recombinant Technology)
- Sizes: Feasible sizes up to 600 x 600mm
Common sizes up to 300 x 300mm
- Lengths: Up to 12m long
- Lamination: Cold laminated using marine grade resorcinol adhesive high external pressure.

Large Section Special Shape Members

Special shaped and curved members are available upon request.

Design

Modular Design

Designed to meet the requirements of TRADA standards. Lamintsia is a flexible structural and architechatural building system that is offered with full Bespoke design services. Component are designed with modular repetition to facilitate functional and practical design and

installation by us or under our supervision.

CAD and Architectural & Structural Detailing

CAD and architectural & structural detailing are prepared by us for each and every project. This process involves our design teams full participation with the clients project management or architectural representatives. A one stop design and build service is available for direct commissioning by the client.

Structural Analysis

Structural analysis and professional engineers’ endorsements are produced for every project where Lamintsia is being used for structural components. Analysis is undertaken in accordance with British standards unless other destination country standards are proffered.

Connection Details

Lamintsia installation is facilitated by predominantly concealed epoxy based plate and dowel connection methodology.

Depending upon the use and environment the following connection materials are adopted using either dowel, plate or bolt form. Materials include: stainless steel grade 304 or 316L, galvanized mild steel or high tensile steel. Epoxies utilised are Venturer VEP 20 or 60 high strength general purpose epoxy paste.

Applications

Architectural Structures:

Architectural structures for the Southern Island Ferry Terminal in Singapore (inset left). Use of column and purpose-made double curved trusses.

Large Architectural Structural Applications:

Column, beams, web beams and roofing elements.

Architectural Complimentary Components:

Trellis, hand railing and gazebos.

