



CLST® > Newest Superior Mass Panel Product

The global demand for renewable and low carbon footprint building materials is un-relenting.

Massive timber products like Cross Laminated Timber (CLT) and Glulam have driven significant international growth with continuously increasing capacity and utilisation over the past decade.

With this growth comes significant opportunities for new and even more innovative products to complement and further drive the low carbon materials revolution. Lignor has developed a perfect competitive alternative to the incumbent products.

Lignor's patented Cross Laminated Strand Timber (CLST®) is a game changing solution which addresses a number of natural limitations experienced with the current solutions.

Verified by a prominent Professor in the field Frank Lam from the University of British Columbia, quote:



THE UNIVERSITY
OF BRITISH COLUMBIA

"I agree that the Lignor CLST® product would be a strong competitor against regular CLT products."

Key Advantages

✔ Utilise Younger Trees + Reduce Fire Load

As CLST® is produced from stranded logs the opportunity to use rapid rotation, smaller and younger trees is a significant advantage to CLT which requires utilisation of older and larger trees which will always limit the global availability.

Utilization of young and small diameter trees is often limited and in high bush fire risk zones creates significant fire loads, conversion to CLST® presents a great opportunity to reduce that fire load risk.

✔ Faster Carbon Capture + Cheaper

It has been scientifically proven that the growth and carbon capture rate of trees such as aspen and plantation eucalyptus, which will commonly be used in Lignor CLST®, are up to 3-4 times quicker than many slower growing tree species with short growth season.

This will ensure the raw material used to produce the product tends to be cheaper and is an excellent absorber of carbon dioxide during its growth stage and continues to act as a carbon sink for the many decades of use in the construction sector.

✔ 70% Fiber Utilisation

Lignor CLST® is extremely raw material efficient, achieving up to 70% fiber utilisation from the original log compared to CLT and Glulam which manage less than 40%.

✔ Water + Insect + Fungi Repelling

Due to the manufacturing process of Lignor CLST®, the product automatically contains water repelling waxes and resins and active ingredients to prevent attack from insects or wood destroying fungi, unlike CLT and Glulam which often need a post treatment in the factory or on construction sites.

During the on-site construction phase, due to the inbuilt water repellency, impacts of rain and high humidity are far less critical to Lignor CLST® thus allowing for easier and quicker installation.

✔ 100% Consistent > Machine in any direction!

As a highly engineered wood product, Lignor CLST® is structurally more consistent than solid sawn wood building elements which are impacted by the natural variations and defects of wood which often leads to the need to increase material amounts to offset the natural variations.

✔ Design Longer + Thinner

The high strength and stiffness of Lignor CLST® allows structural engineers and architects to design with potentially longer spans and with reduced floor and roof thicknesses compared to the incumbent massive wood alternatives.

✔ Radically Reduced Piece Count

For those looking to invest in CLST® manufacturing, the needed investment and operational costs when utilising existing OSB, LSL raw materials can be significantly reduced compared to CLT and Glulam. Reduce the need for additional finger-jointing, machining and small individual wood plank handling, gluing is eliminated all with a radically reduced piece count.

✔ Resin > Approved + Strong

The pMDI resin used to produce Lignor CLST® is internationally approved both in production environments and in the final products. It is commonly used in the production of OSB, OSL and LSL and provides significant properties such as increased strength and reduced moisture uptake to the wood.

✔ Fire Resistance

Lignor CLST® meets the national building code standards of the United States. Due to larger and denser sheet sizes used to produce CLST® the risk of delaminating individual planks and the slower charring rate ensures the product provides a predictable performance. Additional fire retardants may be added to the formulation if required.

✔ Overlay with Anything Confidently

As Lignor CLST® has excellent dimensional stability, the option of covering the material with a wood grain overlay, veneer or alternative surface finish allows for architectural flexibility and design without the risk of surface cracking and peeling of the overlay.

Discover More. Construct Better.

