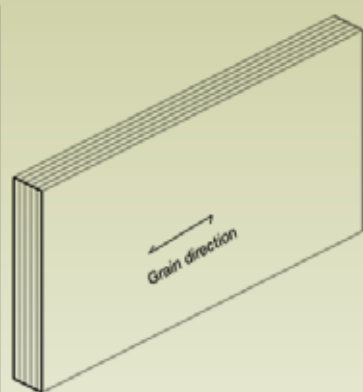


LVL - a high-strength engineered wood product with an unlimited range of design and building applications



Finished exterior and interior during construction, AV Building, Alpine MDF Industries Pty Limited



The biggest advantage of LVL is the fact that it is manufactured continuously, meaning it is available in almost any length.

A versatile, sustainable and cost-effective modern engineered wood product, laminated veneer lumber (LVL) is a great choice for a wide range of residential and commercial building applications.

Laminated veneer lumber (LVL) is made from plantation-grown softwood veneers that are bonded together with a waterproof adhesive. Developed in the 1970s for the general market, LVL's popularity has grown in recent years, as its potential as a structural material has become more widely recognised. One of the biggest advantages of LVL is the fact that it is manufactured continuously in wide 1.2m sheets, meaning it can provide deep sections beams in long lengths, limited only by the ability to transport it.

Length, strength and durability

Through the process of laminating thin timber veneers together the strength of the product is virtually tripled compared to the parent material. LVL has structural properties greater than the individual veneers from which it is manufactured because the manufacturing process effectively carves up and distributes the weak points of a log, the knots. The maximum effect of a single defect in an LVL laminate is very small as the laminates are so thin compared with the thickness of the whole member. The properties of LVL show much less variation than those of sawn timber.

As LVL is normally used in a beam application, the grains of the veneers are all oriented in the same direction. The panels are manufactured under heat and pressure as sheets, or 'billets', usually 1.2 metres in width and in a variety of thicknesses depending on the manufacturer (usually up to 75 mm) and, of course, in any length, though lengths up to 12m are typical in 0.3m increments.

While 'off-the-shelf' LVL conforms to standard structural member sizes, special sizes can be ordered from the manufacturers.

Large sheets of LVL can be ripped or crosscut into curves and angles, increasing its potential uses for the Australian architecture, design and building industries.

The imagination is the only limit to LVL's applications. Andy McNaught of the Engineered Wood Products Association of Australia (EWPPAA) says that LVL is widely used in "beams, lintels, truss chords and formwork because of its reliability, strength and section sizes". It is this combination of properties that makes LVL a product of great significance for the industry. Although LVL is generally used in structural applications, it can also be sanded and painted if exposed, increasing its applications as a design element.

The future of LVL

LVL is today being utilised widely in commercial applications, which have traditionally relied on steel and concrete, with the attendant impact on the environment of these materials. LVL, as with all sawn timber and engineered timber products, has a much lower impact on the environment compared to alternative materials. The embodied energy in production is far lower and trees take CO2 out of the atmosphere as they grow and the wood products from these trees store this carbon for the life of the product. This makes LVL an obvious choice for architects, designers and builders who want a sustainable and cost-effective alternative to traditional materials.

LVL is manufactured in a range of sizes by a number of companies. Span tables and product information is available from their respective web sites.

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