

Kerto® LVL

L-panel



Kerto® LVL L-panel combines excellent technical performance with light weight and dimensional stability. The panel is designed for both horizontal and vertical use in light-duty and non-load bearing applications. Use of large L-panel sizes ensures material efficiency and minimizes installation time.

Kerto LVL L-panel is made of 3 mm thick light-weight softwood veneers. Approximately 20 % of the veneers are oriented in crosswise direction. The veneers are bonded with weather- and boil-resistant phenol formaldehyde adhesive. L-panel is a light-weight product with good strength properties. Crosswise veneers provide excellent dimensional stability and enhances the transverse strength and stiffness of the panel.

L-panel is an ideal material for light-duty and non-load-bearing applications including wall panels, ceiling panels, furniture, packaging, doors and windows.

Main applications

Structural applications:

- Components for light-duty or non-load-bearing applications
- Panel product for interior ceilings and floors

Industrial applications:

- Doors, windows, furniture and packaging
- Concrete formwork

Major advantages

- **Good strength-to-weight ratio**
- **Large light-weight panel product**
- **Dimensional stability improved against warp and twist**
- **Great workability and quick to install**
- **Easy to fasten, nail and drill**
- **Ensures material efficiency with customised product dimensions**
- **Large panels up to 2,500 mm wide, 20 m long**
- **Up to 10 % better thermal conductivity (λ -value) than standard Kerto LVL**
- **Made of sustainable northern wood and PEFC certified**
- **Environmentally friendly**
- **Kerto LVL (1 m³) contains the stored carbon equivalent to 778 kg CO₂**

Approvals and design properties

Kerto LVL L-panel is CE marked and the design properties are determined according to standard EN 14374. The design properties given in the Declaration of Performance (DoP) are to be used for structural calculations with EN 1995 (Eurocode 5). The DoP documents can be downloaded from www.metsawood.com/dop.

L-panel has also national approval in Germany.

Kerto production is managed according to the principles of standard ISO 9001. The quality and the constancy of performance of the product is controlled by regular third party inspections and audits.

Standard sizes

All L-panel thicknesses are available in standard widths 600, 900, 1,200, 1,800 and 2,500 mm. Special dimensions are available on request.

Overall dimensions

	MINIMUM (mm)	MAXIMUM (mm)
Thickness	21	75
Width/height	200	2,500
Length	2,000*	25,000**

* Short lengths (< 2,000 mm) and widths under 200 mm are available on request.
** For products wider than 1,830 mm, maximum length is 20,000 mm.

Standard tolerances

	SIZE	MINIMUM	MAXIMUM
Thickness	≤ 27 mm	-1.0 mm	+1.0 mm
	27 < t ≤ 57 mm	-2.0 mm	+2.0 mm
	t > 57 mm	-3.0 mm	+3.0 mm
Width/height	< 400 mm	-2.0 mm	+2.0 mm
	≥ 400 mm	-0.5 %	+0.5 %
Length	All	-5.0 mm	+5.0 mm

In moisture content of 10 ± 2 %. Special tolerances are available on request.

SANDING OF KERTO LVL AFFECTS PRODUCT THICKNESSES

- Optical sanding reduces the original nominal thickness by approximately 2 mm. The standard thickness tolerances apply to the sanded nominal thickness. Structural design shall be made according to the sanded nominal thickness.
- Calibrated sanding reduces the original nominal thickness by approximately 3 mm. The thickness tolerance of calibrated sanded products is +/- 0.5 mm from the target thickness. The dark glue line may become visible as it is allowed to sand through the face veneers. Structural design shall be made according to the sanded nominal thickness.

Panel constructions

THICKNESS (mm)	NUMBER OF PLYS	LAY-UP
21	7	I-III-I
21	7	II-I-II
24	8	II-II-II
27	9	II-III-II
30	10	II-III-II
33	11	II-III-II
39	13	II-III-III-II
45	15	II-III-III-II
51	17	II-III-III-III-II
57	19	II-III-III-III-II
63	21	II-III-III-III-III-II
69	23	II-III-III-III-III-II
75	25	II-III-III-III-III-II

Special constructions are available on request.

Bonding

Kerto LVL is bonded with a weather- and boil-resistant phenol formaldehyde adhesive. The gluing meets the requirements of the standard EN 14374. The face veneer scarf joints on the front side of the product are glued with colourless adhesive.

During hot pressing the adhesive cures as thermoset plastic, and therefore is inert and non-hazardous to humans and animals.

Formaldehyde emissions

Determined according to EN 717-1, the formaldehyde emitted by Kerto LVL falls far below the Class E1 requirement of ≤ 0.100 ppm and fulfils also the most stringent requirements in the world (≤ 0.030 ppm). The formaldehyde emission of Kerto LVL is app. 0.018 ppm.

Further processing

L-panel can be further processed in various ways according to end-use requirements.

Sanding	Optical sanding, 2 sided only Calibrated sanding, 2 sided only
Edge profiling	Tongue and groove, half-lap
Machining	Machined to special size and shape, notches and holes
Temporary weather protection - up to width 610 mm	WeatherGuard
Treatment against mould	MouldGuard

Special surface veneer grades available on request

Packing

Products are packed in moisture-resistant plastic wrapping or packing hoods. Packages can be stored outside only temporarily. Longer-term storage is recommended under cover in dry conditions.

On request the products can be delivered without plastic wrapping. In this case products shall not be exposed to weather.

Further information

- Kerto LVL L-panel Declaration of Performance (www.metsawood.com/dop)
- Kerto Manual (www.metsawood.com/kertomanual)
- Kerto for Load Bearing Applications brochure

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