

# Kerto® LVL

## L-panel



Kerto® LVL L-Panel is a new LVL product designed mainly for light- and non-load bearing applications with the possibility to customize dimensions to fit to customer requirements. L-Panel is produced in large panel sizes but can also be cut-to size on request.

L-Panel combines excellent technical performance with light weight and dimensionally stability while still maintaining good strength properties. L-Panel is a cross bonded panel with appx. 20 % of the veneers glued in crosswise direction. L-Panel is an ideal choice for light- or non-load bearing wall panels, ceiling panels, furniture, packaging, doors and windows. For specified applications it can be used as light-load bearing beams and columns.

L-Panel has good bending strength and stiffness.

### MAIN APPLICATIONS

#### Structural applications:

- Components for light- or non-load bearing constructions
- Panel product for interior ceilings, floors, doors and windows
- High beams
- Large panels

#### Industrial applications:

- Free shaped beams and panels (CNC machining)
- Non-load bearing applications; doors, windows, furniture
- Special industrial products; concrete formwork

### MAJOR ADVANTAGES

- Strong and rigid
- Large panel product
- Dimensionally stable, does not warp or twist
- Lightest Kerto-LVL product up to 10% lighter than standard Kerto LVL
- Good surface quality properties
- Customized product dimensions, with minimum waste and material costs
- Up to 10% better thermal conductivity ( $\lambda$ -value) than standard Kerto LVL
- Good strength-to-weight ratio
- Great workability, easy to fasten, nail and drill
- Natural material, sustainable Nordic Wood,
- PEFC certified
- Environmentally friendly
- Kerto LVL (1 m<sup>3</sup>) contains the stored carbon equivalent to 789 kg CO<sub>2</sub> stored in wood

### APPROVALS

L-Panel is CE marked and the characteristic properties are determined according to EN 14374 for structural design according to Eurocodes.

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

### PACKING

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

### OVERALL DIMENSIONS

	MINIMUM (mm)	MAXIMUM (mm)
<b>Length</b>	2000*	25 000**
<b>Width</b>	200	2500
<b>Thickness</b>	27	69

\*Short lengths from (< 2000 mm) and widths under 200 mm on request

\*\* When product width wider than 1830 mm maximum length 20 000 mm

### TOLERANCES OF L-PANEL PRODUCTS\*

	Size (mm)	Minimum (mm)	Maximum (mm)
<b>Thickness</b>	≤ 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
<b>Height/</b>	< 400	-2,0 mm	+2,0 mm
<b>Width</b>	> 400	-0,5 %	+0,5 %
<b>Length</b>	All	-5,0 mm	+5,0 mm

\*In moisture content of 10 ±2 %. Special tolerances from request.

### FORMALDEHYDE EMISSIONS

Determined according to EN 717-1, the formaldehyde emitted by L-Panel 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 L-Panel is app. 0.018 ppm.

### FURTHER PROCESSING

L-Panel can be further processed in many different ways according to its end-use and customer specific requirements.

<b>Sanding</b>	Optical sanding, 1-side and 2-side. Calibrated sanding.
<b>Edge profiling</b>	Tongue and groove, Half lap
<b>Machining</b>	Beams machined to special size and shape, notches and holes
<b>Temporary weather protection</b>	WeatherGuard
<b>Fire protection</b>	FireResist (B-s1,d0)
<b>Mould protection</b>	MouldGuard

Special surface veneer grades available on request (visually and optically graded)

### DESIGN VALUES AND PHYSICAL PROPERTIES FOR L-PANEL PRODUCTS

Bending strength	Symbol	L-Panel 27-69 mm	Unit
Edgewise (depth 300 mm)	$f_{m,0,edge,k}$	20,5	N/mm <sup>2</sup>
Flatwise, parallel to grain	$f_{m,0,flat,k}$	25,0	N/mm <sup>2</sup>
<b>Modulus of elasticity</b>			
Parallel to grain, along	$E_{0,mean}$	7500	N/mm <sup>2</sup>
<b>Other properties</b>			
Characteristic density (5%)	$\rho_k$	410	kg/m <sup>3</sup>
Mean density	$\rho_{mean}$	440	kg/m <sup>3</sup>
Moisture content (on mill delivery)		10 (±2)	%
Performance in fire, charring rate	$\beta_n$	0,75	mm/min
Reaction to fire class		D-s1,d0	

### FURTHER INFORMATION

- L-Panel Declaration of Performance ([www.metsawood.com/dop](http://www.metsawood.com/dop))

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