

# Kerto® LVL

## S-beam



Kerto® LVL S-beam combines excellent technical performance with ease of use. Its essential qualities include strength, dimensional stability and light weight. It is an ideal choice for all types of construction projects – renovation, new buildings, pre-fabricated houses and elements.

Kerto LVL S-beam is made of 3 mm thick strength graded softwood veneers. The grain direction of all the veneers is the same. The veneers are bonded with weather- and boil-resistant phenol formaldehyde adhesive.

S-beams can be used both as horizontal and vertical bearers in various construction applications. S-beam has excellent strength-to-weight ratio which allows long spans with minimal deflection. Installation can be carried out without any heavy machinery, even in confined spaces.

### Main Applications

#### Structural applications:

- Beams and headers
- Lintels
- Floor joists
- Rafters and ridge beams
- Trusschords
- Studs and columns
- Portal frames
- Components for roof, floor and wall elements

#### Industrial applications:

- Industrial and heavy duty door frames
- Concrete formwork
- Scaffolding

### Major advantages

- **Strong and rigid**
- **Excellent strength-to-weight ratio**
- **Long spans with minimal deflection**
- **Dimensional stability improved against warp and twist**
- **Great workability and quick to install**
- **Easy to fasten, staple, screw, nail and drill using conventional woodworking tools**
- **Ensures material efficiency with customised product dimensions**
- **Easy to design with free Finnwood design software**
- **Made of sustainable Nordic Wood and PEFC certified**
- **Environmentally friendly**
- **Kerto LVL (1 m<sup>3</sup>) contains the stored carbon equivalent to 789 kg CO<sub>2</sub>**

### Approvals and design properties

Kerto LVL S-beam 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](http://www.metsawood.com/dop).

S-beam has also Eurofins product certificate and national approvals in USA, Norway, Australia, Germany and Japan. Design properties outside Europe are given in the approval documents.

Kerto LVL 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

Thickness (mm)	WIDTH (mm)									
	200	225	240	260	300	360	400	450	500	600
27	Kerto®	Kerto®	Kerto®							
33	Kerto®	Kerto®	Kerto®	Kerto®						
39	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®					
45	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®				
51	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®			
57	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®		
63	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	
75	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®	Kerto®

Other sizes are available on request.

### Overall dimensions

	MINIMUM (mm)	MAXIMUM (mm)
Thickness	27	75
Width/height	40	2,500
Length	2,000*	25,000**

\* Short lengths are available on request (< 2,000 mm).

\*\* For products wider than 1,830 mm, maximum length is 20,000 mm.

### Tolerances

	SIZE (mm)	MINIMUM (mm)	MAXIMUM (mm)
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	-2.0 mm	+2.0 mm
	≥ 400	-0.5 %	+0.5 %
Length	All	-5.0 mm	+5.0 mm

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

### 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 approximately 0.018 ppm.

### Further processing

Kerto LVL S-beam can be further processed in various ways according to end-use requirements.

Sanding	Optical sanding, 1 or 2 sided Calibrated sanding, 2 sided only
Edge profiling	Tongue and groove, half-lap
Machining	Special sizes and shapes, notches and holes
Multiple-gluing (GLVL) - not CE marked	Heavy duty beams from 78 mm up to 144 mm, higher beams available on request
Temporary weather protection - up to width 610 mm	WeatherGuard
Treatment against mould	MouldGuard
Treatment against termites (Australia only)	H2S treatment

### 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 S-beam Declaration of Performance ([www.metsawood.com/dop](http://www.metsawood.com/dop))
- Eurofins Product Certificate EUFI29-20000676-C
- Kerto Manual ([www.metsawood.com/kertomanual](http://www.metsawood.com/kertomanual))
- Kerto for Load Bearing Applications brochure

This leaflet is provided for information purposes only and no liability or responsibility of any kind is accepted by Metsä Wood or their representatives, although Metsä Wood has used reasonable efforts to verify the accuracy of any advice, recommendation or information. Metsä Wood reserves the right to alteration of its products, product information and product range without any notice.