

# Kerto® LVL

## T-stud



### KERTO LVL T-STUD FOR WALLS

Kerto® LVL T-studs are perfect as load-bearing or non-bearing structures in external and internal walls. T-studs are extremely straight, easy to fasten, screw, drill and nail. They are produced from light veneers and the veneer construction is parallel. T-studs have excellent strength-to-weight ratio properties. T-stud veneer construction is parallel, where the direction of all the veneers is lengthwise in relation to product length.

#### MAIN APPLICATIONS

##### Structural applications:

- Wall studs for internal walls
- Wall studs for external walls
- Floor studs
- Supporting studs for columns and beams

##### Industrial applications:

- Non-load bearing applications: door- and window frames, furniture
- Support frames for concrete / formwork moulds
- Packing industry

#### MAJOR ADVANTAGES

- Dimensionally stable, does not warp or twist, an ideal product for walls
- Straightness and stability enables high construction walls
- Due to the strong veneer construction, all kinds of fastenings are easy to do
- Customized product dimensions, with minimum waste, material costs and time on construction site
- Kerto® LVL T-stud can be used with any sheet materials that are easily fixed without special tools
- Excellent strength-to-weight ratio
- Great workability, easy to fasten, staple, nail and drill
- Light Kerto LVL product, easy to handle and lift manually at construction site
- Natural material: sustainable Nordic wood,
- PEFC-certified
- Environmentally friendly
- Kerto LVL T-stud (1 m<sup>3</sup>) contains stored carbon equivalent to 789 kg CO<sub>2</sub>

### APPROVALS

Kerto LVL T-Stud is CE-marked, and the characteristic properties are determined according to EN 14374 for structural design according to the Eurocodes.

Kerto production is managed according to principles of ISO 9001:2008. The quality and the constancy of performance of the product are controlled by the notified body VTT Expert Services Ltd by means of regular inspections and audits.

### PACKING

Products are packed in moisture-resistant plastic wrapping. Packages can be stored outside only temporarily. For longer-term storage, it is recommended to keep packages under cover in dry conditions.

### TYPICAL T-STUD SIZES

	WIDTH (mm)			
THICKNESS (mm)	66	75	92	<200 mm
39	Kerto®	Kerto®	Kerto®	Kerto®
45	Kerto®	Kerto®	Kerto®	Kerto®

Special dimensions available by request – there may be requirements for minimum quantity per special dimension.

### OVERALL DIMENSIONS

	MINIMUM (mm)	MAXIMUM (mm)
LENGTH	2,000	16,000*
WIDTH	40	200*
THICKNESS	33	51*

\*Special thickness, widths and lengths are available on request.

### TOLERANCES OF T-STUDS PRODUCTS\*

	SIZE (mm)	MINIMUM (mm)	MAXIMUM (mm)
Thickness	33 < t ≤ 51 mm	-2.0 mm	+2.0 mm
Height/	All	-2.0 mm	+2.0 mm
Width	All	-0.5%	+0.5%
Length	All	-5.0 mm	+5.0 mm

\*In moisture content of 10 per cent ±2 per cent.  
Special tolerances available on request.

### FORMALDEHYDE EMISSIONS

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

Fire protection.....FireResist (Ds2,d0)

Mould protection.....MouldGuard

### DESIGN VALUES AND PHYSICAL PROPERTIES FOR KERTO LVL T-STUD PRODUCTS

Bending strength	Symbol	T-Stud 33-51 mm	Unit
Edgewise (depth 300 mm)	$f_{m,0,edge,k}$	27.0	N/mm <sup>2</sup>
Flatwise, parallel to grain	$f_{m,0,flat,k}$	32.0	N/mm <sup>2</sup>
Modulus of elasticity 33-51 mm			
Parallel to grain, along	$E_{0,mean}$	10,000	N/mm <sup>2</sup>
Other properties			
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
Euroclass with regard to reaction to fire		D-s1,d0	

### FURTHER INFORMATION

- Kerto manual ([www.metsawood.com/kertomanual](http://www.metsawood.com/kertomanual))
- T-Stud Declaration of Performance ([www.metsawood.com/dop](http://www.metsawood.com/dop))
- T-Stud products are CE-marked according to the EN 14374 standard