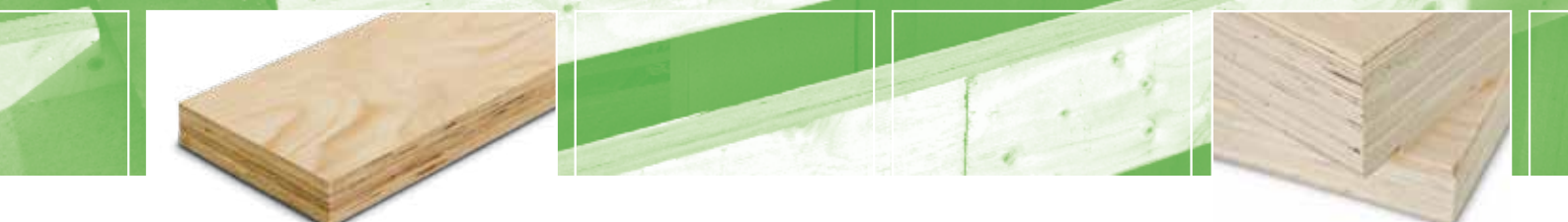


Construction elements –  
naturally made of timber



## | AREAS OF USE

Joists, beams, studs, purlins, top plates, window and door lintels, main beams, structural boards etc

Various industrial applications

System component for the STEICO*construction* building system



- LVL – Laminated Veneer Lumber for various applications
- Available in a wide range of thicknesses and formats
- High strength to weight ratio
- Dimensional stability
- High compression strength for Rimboard applications
- Easily cut and machined using traditional tools
- High connection capacity and fixing withdrawal strength
- Efficient use of timber resources

For more information please visit our website at [www.steico.co.uk](http://www.steico.co.uk)



# Quality and *Efficiency*

## STEICO *LVL*: Laminated veneer lumber for the highest demands

STEICO *LVL* is made of multiple 3 mm layers of graded laminated veneers. This disperses knots and irregular growth, producing a practically homogeneous cross section. This construction means that STEICO *LVL* is highly rigid and dimensionally stable.



Producing the product in this method also allows a larger variety of formats to be produced thanks to the production of a blank sheet up to 20.5 m long and 1.25 m wide.

### CE-certified

The Stuttgart Materials Testing Institute of the University of Stuttgart (Germany) have certified STEICO *LVL R*, with lateral veneer layers, and STEICO *LVL X*, with crosswise veneer layers according to EN 14374.

| INFINITE AREAS OF USE



Factory produced wall cassettes with STEICO LVL R and STEICOwall.



STEICO LVL R for high load-bearing capacity floor elements

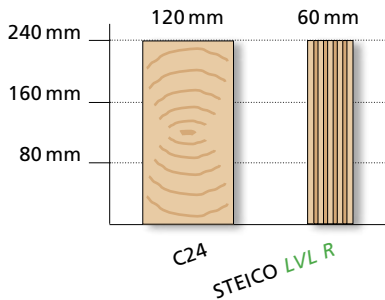


Pre-assembled box girders for roof construction.

Whether used as a Beam, Joist, Column, Sole Plate, Structural Roof Decking or for Industrial applications: STEICO LVL excels with its versatility.

Its increased structural integrity allows for high load bearing yet slender constructions which combine Architectural requirements with long term safety and security.

Cross sections with same bending strength

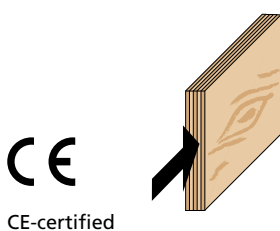


| STEICO LVL R IS ONE OF THE MOST RIGID ENGINEERED WOOD PRODUCTS AVAILABLE

The actual mechanical values achieved confirm the high quality of STEICO LVL. The vertical bending strength is 48 N/mm<sup>2</sup> and the characteristic flat bending strength is 50 N/mm<sup>2</sup>. This means that the bending strength is twice that of normal C24. The compression strength is an impressive 40 N/mm<sup>2</sup>, and the modulus of elasticity has an average of 14.000 N/mm<sup>2</sup>. This means: slender structural elements, less materials and reduced costs.

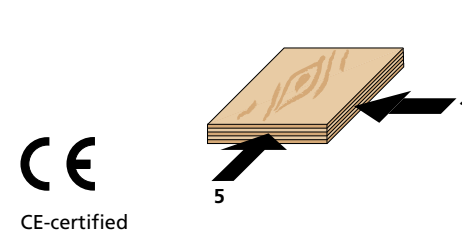
**STEICO LVL R**  
Laminated Veneer Lumber

Powerful engineered timber product for rectangular cross sections. With STEICO LVL R elements all veneer layers are glued together longitudinally.



**STEICO LVL X**  
Laminated Veneer Lumber

Cross laminated STEICO LVL X means that ca. one-fifth of the veneers are glued crosswise – improving the lateral bending strength and stiffness of the board.



| CERTIFICATION

STEICO *LVL R* is produced and monitored according to the harmonised European product standard EN 14374 and bears the CE mark.

| STORAGE/TRANSPORT

STEICO *LVL* laminated veneer lumber should be stored flat. The distance between the supporting beams should not exceed 2m. STEICO *LVL* should be protected from the elements.

| MOISTURE

STEICO *LVL* should be protected from excessive exposure to moisture. STEICO *LVL* is produced and delivered with a moisture content of approximately 8-10%.



Production certified accor. to ISO 9001:2008

| AVAILABLE FORMATS OF STEICO *LVL R*

Length [mm]	Thickness [mm]	Width [mm]	Pieces/Pak.	Weight/Pak. [kg]
12.000	39	200	30	ca. 1.630
		220	30	ca. 1.790
		240	25	ca. 1.630
		300*	20	ca. 1.630
		360*	15	ca. 1.460
		400*	15	ca. 1.630
12.000	45	200	30	ca. 1.880
		220	30	ca. 2.070
		240	25	ca. 1.880
		300	20	ca. 1.880
		360*	15	ca. 1.690
		400*	15	ca. 1.880
12.000	75	200	18	ca. 1.880
		220	15	ca. 1.720
		240	15	ca. 1.880
		300	12	ca. 1.880
		360	12	ca. 2.260
		400	9	ca. 1.880
12.000	90	200	18	ca. 2.260
		220	15	ca. 2.070
		240	15	ca. 2.260
		300	12	ca. 2.260
		360	9	ca. 2.030
		400	9	ca. 2.260

\* To be used as part of a multi-ply beam or rimboard only.

Customized sizes and qualities are available on request as well as special packaging and shipment. Formats for STEICO *LVL X* on request.

| CHARACTERISTIC DESIGN VALUES FOR STEICO *LVL*

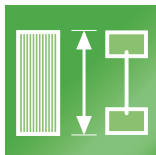
according to EN 14374 to be used in design according to Eurocode 5 in N/mm<sup>2</sup>

STEICO <i>LVL R</i>	Characteristic density = 480 kg/m <sup>3</sup> . Size effect parameter s = 0.15	
	Panel Applications	Beam Applications
Bending strength $f_{m,0,k}$	50.0	48.0
Tension strength $f_{t,0,k}$	36.0	36.0
Compr. strength parallel to grain $f_{c,0,k}$	40.0	40.0
Compr. strength perpendicular to grain $f_{c,90,k}$	3.8	7.5
Shear strength $f_{v,k}$	3.2	4.6
Modulus of elasticity $E_{0,mean}$	14.000	14.000
Shear modulus $G_{mean}$	500	500

Bending strength $f_{m,0,k}$	38.0	34.0
Tension strength $f_{t,0,k}$	24.0	24.0
Compr. strength parallel to grain $f_{c,0,k}$	34.0	34.0
Compr. strength perpendicular to grain $f_{c,90,k}$	4.2	8.0
Shear strength $f_{v,k}$	2.7	4.6
Modulus of elasticity $E_{0,mean}$	10.600	10.600
Shear modulus $G_{mean}$	550	550



High load bearing capacity



Heights to match STEICO I-joists



High dimensional stability



Easy to machine

STEICO *LVL R*

STEICO *LVL X*

**STEICO**  
natural building products

Your STEICO Agent

www.steico.co.uk