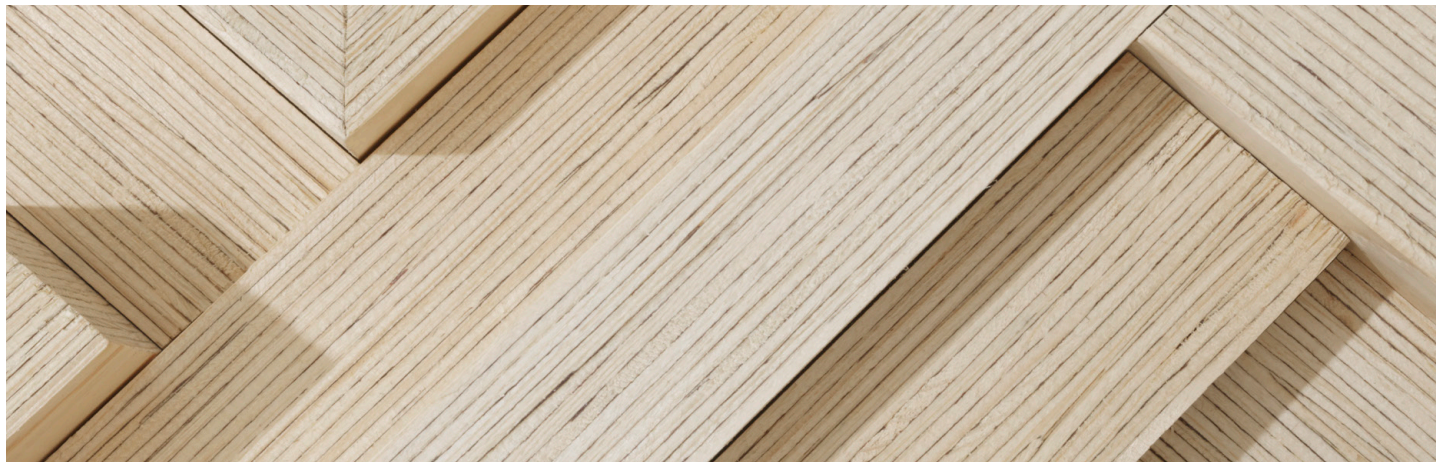


## Kerto® LVL



Kerto® LVL products are manufactured according to nominal dimensions defined in the purchasing order. Small deviation from the nominal dimensions occur due to the wood raw material and the production process. Dimensional tolerances give the limits for the deviation.

Tolerances for Kerto LVL products are presented in table 1 and figure 1 illustrates the dimensions. Tolerances are given in moisture content of 8-12%. The moisture content on delivery is about 8-10%. Please note that moisture content of the products affects the dimensions. If moisture content deviates from the reference moisture content of 8-12%, the product may swell or shrink outside the given tolerances.

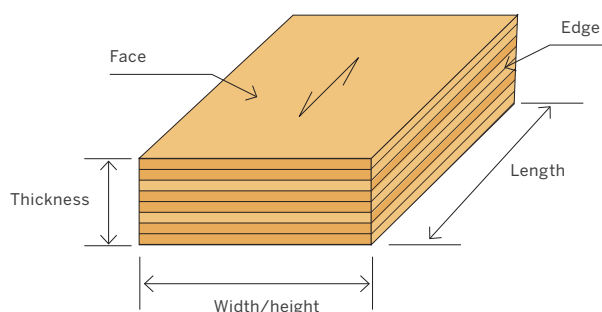


Figure 1. Dimensions of Kerto LVL

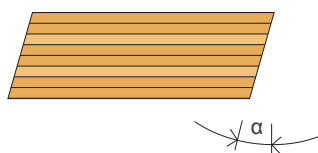


Figure 2. Deviation angle of the cross-section

TABLE 1. TOLERANCES FOR KERTO LVL PRODUCTS

	SIZE	MIN.	MAX.
Thickness	$t \leq 27$ mm	-1.0 mm	+1.0 mm
	$27 \text{ mm} < t \leq 57$ 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
	$\geq 400$ mm	-0.50 %	+0.50 %
Length	All	-5.0 mm	+5.0 mm
Deviation of the cross-section from a right angle	All	-1.1°	+1.1°

In moisture content of  $10 \pm 2$  %. 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  $\pm 0.5$  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.

**Note!** When designing Kerto LVL products according to EN 1995 (Eurocode 5), the nominal dimensions of the product may be used unless local or national building rules and regulation stipulate how tolerances are to be taken account of.

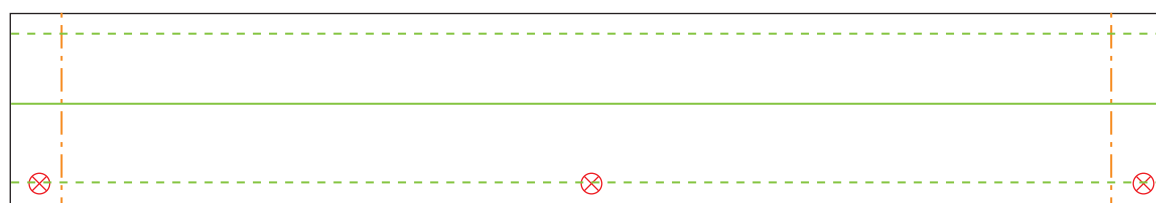
## Measuring instructions





Due to the raw material and production process the dimensions of Kerto LVL products slightly vary within the product especially in large beam and panel sizes. Therefore it is recommended to measure the dimensions from several locations of the product. Figure 3 and table 2 illustrate the recommended measurement locations. Width/height is measured from two locations near the ends of the product. Length is measured from one or two locations depending on the width of the product.

It is recommended to use calliper with minimum accuracy of 0.1 mm for measuring the thickness of the products. Measuring tape with accuracy of 1 mm is suitable for width and length measurements.

**TABLE 2. MEASUREMENTS**

	PRODUCT SIZE	NUMBER OF MEASUREMENTS	LOCATION OF MEASUREMENTS
Thickness	All	3	From both ends and middle of the product length
Width/height	All	2	About 100 mm from the product ends
Length	Width ≤ 400 mm	1	Along the centre line
	Width > 400 mm	2	Lengthwise, about 50 mm from the product edges



-  = thickness measurement
-  = width/height measurement
-  = length measurement (max. 400 mm wide products)
-  = length measurement (over 400 mm wide products)

**Figure 3.** Measurement locations

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