

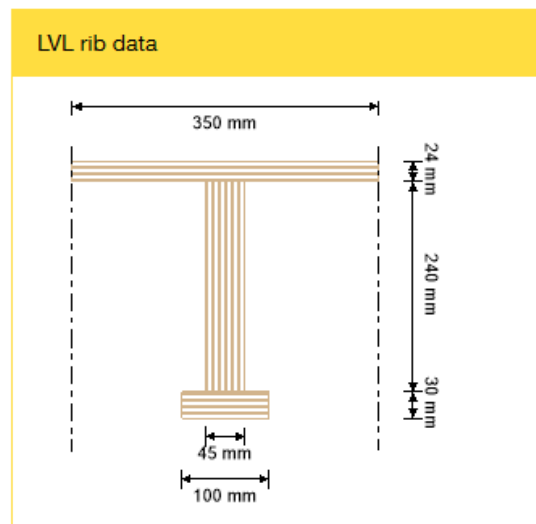
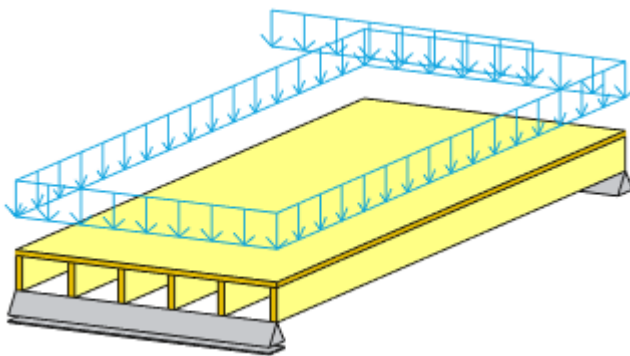
New features and changes in Calculatis 2020

The new release of Calculatis by Stora Enso

Since the last release of Calculatis by Stora Enso, some new features were added, some adaptations were made and some bugs were fixed.

LVL rib panels by Stora Enso

Since January 2019 Stora Enso holds an ETA for LVL rib panels. These can now be designed, using Calculatis by Stora Enso.



Connector design

So far only some standard screws, nails and connectors from Rothoblaas have been supported by Calculatis. Calculatis 2020 is now supporting material from Würth as well.



Voids in LVL and glulam beams

In Calculatis 2020, glulam beams and LVL beams with rectangular sections, can be designed with voids. These can have either rectangular or circular shape.



New ETA for CLT

In January 2019 Stora Enso obtained a new ETA-14/0349 for CLT. The new ETA supports now CLT from all our production sites, including our new mill in Sweden. Therefore the ETA had to be adjusted and a few design features and methods did change.

Feature	Description
Young's Modulus for CLT	C16/T11: 8.000 MPa C24/T14: 12.000 MPa C30/T21: 12.000 MPa
Shear strength in the plane of CLT	<p>The new shear strength in the plane of CLT is now as follows:</p> $f_{v,net,k} = 3,9 \text{ N/mm}^2$ <p>This shear strength shall be compared to a shear stress in the plane of CLT, applied to the MAXIMUM of the net section</p> $A_{net} = \max \begin{cases} A_{net,x} \\ or \\ A_{net,y} \end{cases}$ <p>The shear design in the plane and in the net section of CLT shall be done as follows:</p> $\tau_{V,0,d} = \frac{n_{xy,d}}{\max \begin{cases} A_{net,x} \\ or \\ A_{net,y} \end{cases}} \leq f_{v,net,d} = \frac{f_{v,net,k} \cdot k_{mod}}{\gamma_M}$ <p>This is the new design method, provided by OIB.</p> <p>Compared to previous design: Previously the shear strength was higher (8 N/mm²) and the design was done, using min (A_{net,x}; A_{net,y}) – see expertise by Prof Blaß, dated March 2nd, 2010.</p>

Terms of use

We would also bring to your attention that Stora Enso Wood Products GmbH had to change the terms of use for Calculatis, in order to continue, providing the software to its users.