# Module „CLT-Plate 1D - Internal forces“

## Input data

The input is divided into:

- definitions of the cross section
- specifications concerning structural fire design
- internal forces according to the theory (of $1^{st}$ or $2^{nd}$ order) on which the calculations are based on
- design factors
- specifications concerning stability

### Cross section

The input is the same as for the Module "CLT-Plate 1D - Continuous beam".

Show description

### Fire

The input is the same as for the Module „CLT-Plate 1D - Continuous beam“.

Show description

### Type of calculation, internal forces, design factors and specifications concerning stability

The internal forces and the underlying type of calculation are defined in the tab „Internal forces, stresses and utilisation ratios“. Additionally, the design values are specified here.

If the internal forces result from a calculation based on a first order analysis a substitute buckling length has to be stated in case of a negative normal force ("problem of stability"). Based on this buckling length and the respective cross section the required buckling factor $k_c$ needed for the verification is calculated automatically.

## Results and output

## Cross section values

The output is the same as for the module Module „CLT-Plate 1D - Continuous beam“.

Show description

## Summary of the results

The stress distributions and the governing utilisation ratios are shown in the tab "Internal forces, stresses and utilisation ratios".

## Detailed results

Stresses and utilisation ratios of the single layers are shown when clicking on the "Details" button.