



Design Methods of Elements from Cross-Laminated Timber Subjected to Flexure

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Author: Vilguts, Aivars
Serdjuks, Dmitrijs
Pakrastins, Leonids

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Summary:

Design methods of cross-laminated timber elements subjected to bending is considered. The methods are based on LVS EN 1995–1–1. The presented methods were checked by the experiment and analytically. Two cross-laminated timber plates with the total thickness of 95 mm were tested under action of static load. The considered cross-laminated timber plates were analysed by FEM method, which is based on the using of computational program ANSYSv14. The comparison of stresses acting in the edge fibres of the plate and the maximum vertical displacements shows that the considered methods can be used for engineering calculations so as the difference between the experimentally and analytically obtained results does not exceed 20%.

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