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COMPRESSION STRENGTH OF BRANCH WOOD AS ALTERNATIVE ECO-MATERIAL TO STEM WOOD

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Abstract

The evolution of the request in wood production leads to larger stem wood consumption, intensive harvesting and consequently the environmental impact increases. One of the most ignored secondary resources in spite of limited reserves, branch wood could be used in new added value products as an alternative to stem wood, providing its characteristics are known and understood. This paper is part of a larger research project, which here compares the compression strength parallel to the grain of branch wood of maple (*Acer spp*), beech (*Fagus sylvatica L.)* and Scots pine (*Pinus sylvestris L.)* with compression strength of stem wood. Results were interpreted on micrographs viewed on SEM and Laboval compound microscope. Excepting Scots pine, who's strength was only a half, maple and beech branch wood had similar strengths to stem wood of the same species, which makes them alternative raw materials.

Key words: branch wood, compression strength, microscopy, stem wood

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