Determination of relationships between density, amount of glue and mechanical properties of OSB

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Sažetak
This paper deals with problems of the effect of changes in density and amount of glue on mechanical properties of OSB (oriented strand boards). Tests of mechanical properties were carried out on OSB/3, 18 and 15 mm thick, produced on an OSB production line of the prominent manufacturer of board composite materials in the Czech
Republic. In the first stage of the experiment, density was decreased in manufactured OSB with a nearly the same amount of glue. In the second stage, density was constant and the amount of glue changed. Bending strength, modulus of elasticity and tensile strength perpendicular to the board surface were determined in OSB samples of particular variants. Results of laboratory tests were compared with values given by the ČSN EN 300 standard for category OSB/3.

Ključne riječi
oriented strand board (OSB); density; bending strength; modulus of elasticity; tensile strength perpendicular to the board surface; amount of glue; PMDI glues

[Hrvatski]