STUDY REGARDING THIN PLYWOOD STRUCTURE AS A DETERMINANT FACTOR OF THEIR ELASTICITY

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Abstract: Plywood, as composite material made from wooden veneers, in a large range of thicknesses, is used in any application that needs high quality wooden sheet material. Plywood structure has a great influence on its characteristics determining the product quality. The structure depends on different factors related to the raw material, laminating pattern and manufacturing process, among which are: species, core thickness, layers symmetry and degree of pressing. The relevant mechanical feature of thin plywood that defines its quality and operability is *elasticity*, defined by the elasticity constant as well as by the values of dynamic bending elasticity modulus.
The main objective of the paper was to analyze the influence of the plywood structures on modulus of elasticity in dynamic bending. The research was focused on different plywood structures, the thicknesses ranging between 1-3 mm. The results were influenced in a great extend by the core layer percentage, for both samples, parallel and perpendicular orientation, the E_d values increasing with increasing of the plywood thickness.
***Key words*:** thin plywood, elasticity, structure, thickness, dynamic modulus.