

ON THE DETERMINATION OF THE MODULUS OF ELASTICITY OF WOOD BY COMPRESSION TESTS PARALLEL TO THE GRAIN

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ABSTRACT

*In this work, the determination of the longitudinal modulus of elasticity (E_L) of maritime pine (*Pinus Pinaster* Ait.) wood was investigated by means of compression test parallel to the grain. The effect of parasitic end-effects (i.e., friction and damage) on the correct evaluation of the E_L modulus was studied using parallelepiped wood specimens with different cross-section areas and lengths. The results from the data reduction conventionally applied to this test method were compared to values obtained from strain measurement provided by a full-field optical method (stereovision technique). The influence of the geometry of the specimen on the correct evaluation of the E_L was assessed and discussed.*