

PRODUCTION OF MDF FROM HARD HARDWOOD TREE SPECIES WITH UREA-FORMALDEHYDE RESINS

Julia Mihajlova, Victor Savov

ABSTRACT

There is a number of technological difficulties related mainly to the lower slenderness ratio of the fibrous elements and the relatively small coefficient of compression in the production of MDF from hard hardwood tree species. The negative impact of these factors may be compensated, at least partially, with a change in the technological factors during production.

In this paper, an examination with respect to the effect of some factors in the production of MDF has been presented. The effect of the binder content (when using urea-formaldehyde resin), the effect of the density of the boards and the pressure during pressing have been examined. Regression equations have been worked out for the effect of these factors.

Optimum density of MDF from wood of hard hardwood tree species, as well as values of the pressure during pressing, at which this density shall be obtained, have been determined. Optimum durations of pressing at different temperatures have been determined in order to achieve best values of the physicomechanical indices of MDF.

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