INFLUENCE OF OIL PALM TRUNK *(Elaeis guineensis)* AND ACACIA (*Acacia mangium*) ON THE PARTICLEBOARD PROPERTIES

By

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Abstract

The objective of this study was to evaluate both physical and mechanical properties of particleboard from oil palm trunk (*Elaeis guineensis*) and *Acacia mangium* by using phenol formaldehyde adhesive. For this study, bottom part from both species have been used and the target density was fixed at 650kg/m^3. Parameters for the study were 3 wood ratio and 3 resin content. Type of testing such as bending strength, IB, TS and WA have been carried out. All tested were based on European Standard (EN). All data were collected, analysed and discussed. Panels made with 100% acacia particles had the highest both of average MOR strength values of 11.94 Mpa and for IB sample was 0.37 Mpa, respectively. Mixture of acacia and OPT in the boards influenced their physical properties in both TS and WA. The worked showed that both types of species could to be used as raw material for panel products potentially be used.

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