EFFECT OF PARTICLE SIZE AND RESIN CONTENT ON *Leucaena leucocephala* PARTICLEBOARD PROPERTIES

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ABSTRACT

This research was carried out to investigate the effect of particle size and resin content on mechanical and physical properties of particleboard from *Leucaena leucocephala* species. The *Leucaena* tree was harvested at UiTM Jengka forest. 24 boards were made from different particle size which is 1.0mm, 2.0mm, and 1.0mm + 2.0mm (mix). The resin content for three different types of particle size is 8%, 10%, and 12%. Urea formaldehyde (UF) was selected in this research. The press condition of board using UF resin was 180°C for duration of 6 minutes. The mechanical properties in static bending for modulus of rupture (MOR) and modulus of elasticity (MOE), tensile perpendicular to board were also determined after 24 hour water immersion. The results have indicated that the effect of particle size and resin content play important role in determining the mechanical and physical properties of particleboard.