MECHANICAL AND PHYSICAL PROPERTIES OF OSB FROM LEUCAENA LEUCOCEPHALA AT DIFFERENT RESIN CONTENT

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ABSTRACT

Oriented Strand Board (OSB) was produced from strands of wood sliced from small diameter logs. The strands were arranged alternately to each layer. In this study, Petai Belalang (*Leucaena leucocephala*) species of eight and sixteen years old were used to produce 700kg/m^3 OSB with the resin contents of 5%, 7% and 9%, to identify the mechanical and physical properties of the OSB. The results show that the strength properties of OSB namely the Modulus of Rupture (MOR), Modulus of Elasticity (MOE) and Internal Bonding (IB) increase when the level of resin content increases. The physical properties, and increase in the resin content resulted in low water absorption and thickness swelling. Based on the mechanical and physical properties, *Leucaena leucocephala* can be used as raw material for the OSB making.