STRENGTH PROPERTIES OF ORIENTED STRAND BOARD FROM *ACACIA MANGIUM* AT 5% AND 7% RESIN CONTENT WITH DENSITY OF 500 Kg/m^3

By

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ABSTRACT

Oriented Strand Board (OSB) is a new type of wood composite, which is yet to be commercially produced in Malaysia. It is made from long, thin and narrow wood strands bonded by a synthetic resin and converted into a solid panel during the hot pressing operation. This type of board is considered as an engineered product with a great strength and dimensionally stables. This paper discusses the strength properties of OSB made from *Acacia mangium*. The study showed that the specimen with resin content of 7% with density of 500 Kg/m^3 show better result compared to specimens of 5% resin content which value of MOE, MOR, internal bonding, thickness swelling and water absorption meet the minimum requirement of the Malaysian Standard for medium duty (MS 544). It is conclude that density of 500 Kg/m^3 with 7% resin content is the optimum treatment to make OSB from *Acacia Mangium* wood.