

**PROPERTIES OF ORIENTED STRAND BOARD (OSB) FROM MIX ACACIA
AND MAHANG WITH DENSITY OF 700 KG/M³**

SITI NOOR HIDAYAH BT MOHD SIDI

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ABSTRACT

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By

SITI NOOR HIDAYAH BT MOHD SIDI

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Oriented Strand Board (OSB) is a multi-layered board made from strand of wood of predetermines shape and bonded together with a PF resin. The strand in the outer-layers are aligned parallel to the board length width, the strands in the center layer or layer can be randomly oriented or aligned, generally at right angles to the strand of the external layers. The purpose in this study is to determine the strength properties of OSB from mix *Acacia mangium* (70%) and *Macaranga hypoleuca* (30%). The strength properties include Modulus of Elasticity (MOE), Modulus of Rupture (MOR), Internal Bonding (IB), percentage of thickness swelling, and also percentage of water absorption. These species are light hardwood which the density of acacia is about 450-690 kg/m³ and Mahang 290-300 kg/m³. The purpose of this study also to determine whether mix Acacia and Mahang are suitable or not in the production of OSB. This trial is using 7% of resin content with the density 700kg/m³ were compared with European Standard (EN310) and this treatment were indicate that's are suitable to manufacture.