

PROPERTIES OF ORIENTED STRAND BOARD
(OSB) USING MIXED TROPICAL WOOD USING
SAPIUM BACCATUM AND *MACARANGA*
HYPOLEUCA

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ABSTARCT

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Oriented Strand Board (OSB) is one of many wood composites. Today, this panel is the most popular engineered wood for worldwide since this tremendous material replaces plywood for building construction. The Ludai (*Sapium baccatum*) and Mahang Kapur (*Macaranga hypoleuca*) species is selected to know the properties of OSB which made from this species. The testing on the board are bending strength include Modulus of Rupture (MOR) and Modulus of Elasticity (MOE), internal bonding, thickness swelling and water absorption. The result of these specimens will be compared to the minimum requirement of British Standard (EN 321-3). The optimum treatment is suitable to form oriented strand board from mixed tropical wood Ludai (*Sapium baccatum*) and Mahang Kapur (*Macaranga hypoleuca*). OSB will get an optimum result is using 7% resin at the 600kg/m³ density. The result for MOR is 31.82 MPa, MOE is 4152.39 MPa, internal bonding is 0.477 MPa, water absorption is 78.83% and thickness swelling is 15.76%.