

**PROPERTIES OF PARTICLEBOARD MADE FROM OIL PALM
FROND USING DIFFERENT RESIN CONTENT AND BOARD
DENSITY**

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ABSTRACT

The national oil palm industry is producing millions of ton of biomass every year. These biomass products need to be managed properly for a better economic and technology development in this country. Oil palm frond biomass can act as an alternative source for wood-based industry. This research was made to determine about the mechanical and physical properties of particleboard made from oil palm frond (OPF) by using different resin content and board density. The tests on the mechanical properties include bending (MOE and MOR) and internal bonding. Meanwhile for the physical properties the tests are thickness swelling and water absorption. Based on the tests, higher density board and resin content seem to give better result in mechanical properties and physical properties. Boards with 700kg/m^3 density and 12% of resin content achieved the minimum requirement based on the JIS A5908 standard.

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