

**PROPERTIES OF PARTICLEBOARD FROM OIL PALM TRUNK
PARTICLES: INFLUENCES OF PARTICLE SIZE, RESIN CONTENT AND
BOARD DENSITY**

By

**SITI NOR AIN BINTI TAMIRAN
NOR SUZIANA BINTI SHAHRIMAN
NOR ASHIKIN BINTI RAZAK**

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In the name of Allah, The most Gracious and The Most Merciful

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ABSTRACT

PROPERTIES OF PARTICLEBOARD FROM OIL PALM TRUNK PARTICLES: INFLUENCES OF PARTICLE SIZE, RESIN CONTENT AND BOARD DENSITY (*Elaeis guineensis*)

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The properties of particleboard produced from oil palm trunk particles, *Elaeis guineensis* using phenol formaldehyde were studied. The influences of different particle sizes (1.0mm and 2.0 mm), resin content (7%, 9% and 11%) and target board densities (500 kg/m³, 600 kg/m³ and 700 kg/m³) were studied. The particleboard was tested for the physical and mechanical properties using the European standard. Increasing particle size would increase the mechanical and decrease the physical properties of the oil palm particleboard. The increasing in board density would increase the mechanical and decrease the physical properties of the oil palm particleboard. The increasing in resin content in the board would increase the mechanical and decrease the physical properties of the oil palm particleboard.