

**EFFECT OF PARTICLE SIZE ON MOULDED PARTICLEBOARD  
FROM OIL PALM FROND (*Elaeis guineensis*) WITH DENSITY  
700 Kg/m<sup>3</sup> AND 15% RESIN CONTENT**

**By**

**SITI FATIMAH BINTI ZAKARIA**

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Faculty of Applied Science  
Mara University of Technology  
Pahang**

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**ABSTRACT**

Particleboard is one of many woods composite. Today, this panel is the most popular engineered wood for worldwide since this tremendous industrial replaces plywood for building construction. Oil palm frond from oil palm tree (*Elaeis guineensis*) is selected to know the properties of particleboard and which one size of particle is suitable for particleboard manufacturing. It is included 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> hammer mill. The testing on the board are bending strength, internal bond, thickness swelling, water absorption, density profile and moisture content. From this testing, the bending strength is higher with larger particle size. The value for internal bond is higher with smaller particle size. Thickness swelling and water absorption is increase with an increase the particle size. After compared with JIS Standard, all samples are passing with standard data.