

**PROPERTIES OF PARTICLEBOARD FROM *Acacia mangium* IN RELATION TO  
PARTICLE SIZE**

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## ABSTRACT

This study was carried out to determine the properties of particleboard from *Acacia mangium* in relation to particle size. This study was done by using three type of particle range which is 1.0mm, 2.0mm and combination of all particle sizes. Urea formaldehyde (UF) was used as a binder with three ratio resin content 8%, 10% and 12%.The properties of bending strength, internal bonding (IB), thickness swelling (TS) evaluated based on BS EN standard. For preparation of sample, *Acacia mangium* tree was cut down form UiTM Jengka, then have being through the process of particle preparation start from debarking ,chipping, flaking, screening and board making. After finish for particle preparation, particleboards were test for bending test, internal bond and thickness swelling. The result gained from Instron machine and has being record and analyzed. From this research, it showed that mixture of particle size of wood particle and resin content 12% shows the highest strength of particleboard.