

**PROPERTIES OF *Acacia mangium* WOOD CEMENT BOARD IN
RELATION TO PARTICLE SIZE AND CURING TIME**

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ABSTRACT

PROPERTIES OF *Acacia Mangium* WCB IN RELATION TO PARTICLE SIZE AND CURING TIME

Particle size and curing time had significance effect on physical and mechanical properties of WCB. One way analysis of variance (ANOVA) has been used to examine if there is any significance differences between the populations mean. The findings were revolved around the mechanical and physical properties of Wood Cement Board (WCB) from *Acacia Mangium*. The two parameters that involved in this study are the particle sizes and the curing time. Particle size, curing time and the correlation between particle size and curing time influence on all the WCB properties. Only the values of physical properties which are WA and TS met the standards of MS544:2001. Effect of particle size on mechanical properties indicate fluctuation due to the increasing of particle sizes while the effect of particle size on physical properties also show fluctuation due to the increasing of particle sizes. The longer the curing time tends to cause higher values of MOR, MOE and IB on the effect of curing time on mechanical properties. Meanwhile, in the effect of curing time on physical properties, the value of WA tends to decrease due to the longer curing time but the value of TS slightly increase corresponding to the longer curing time.