

PARTICLEBOARD FROM *Acacia mangium* HYBRID *Bambusa vulgaris* var.  
*striata* IN RELATION TO DIFFERENT RESIN CONTENT

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## ABSTRACT

### **PARTICLEBOARD FROM *Acacia mangium* HYBRID *Bambusa vulgaris var. striata* IN RELATION TO DIFFERENT RESIN CONTENT**

*Acacia mangium* and *Bambusa vulgaris var. striata* are the fast growing plant that can be commercialize for particleboard raw material. The *Acacia mangium* were cut down at Universiti Teknologi MARA Campus Jengka. The *Bambusa vulgaris var. striata* were cut down at Sekolah Kebangsaan Jengka Pusat. The properties (MOR, MOE, internal bonding, and thickness swelling) of the particleboard from *A. mangium* were compared with the properties of particleboard from *A. mangium* hybrid *B. vulgaris var. striata*. The effect of varying resin content (7%, 9%, and 11%) on the two types of particleboard was determined. The size of this study was fixed at the range of 1.0 mm to 2.0 mm. The mechanical properties of the particleboard were improved with existing of the *B. vulgaris var. striata*. For physical property, existing of *the B. vulgaris var. striata* increased the percent of the thickness swelling. For resin content, highest resin content which is 11% had improved all the mechanical and physical properties of the particleboard. Particleboard from *Acacia mangium* hybrid *Bambusa vulgaris var. striata* can be used for indoor furniture as bamboo is excellent in absorb moisture.