

**PROPERTIES OF PARTICLEBOARD FROM *EUCALYPTUS*
PELLITA AND PETAI BELALANG (*LEUCAENA*
LEUCOCEPHALA).**

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ABSTRACT

This study focus on alternative species to produce particleboard with the targeted density of 600 kg/m^3 . *Eucalyptus pellita* was mixed with Petai Belalang (*Leucaena leucocephala*). The main objectives of this study are to determine the mechanical and physical properties of particleboard made from a mixture of *Eucalyptus pellita* and *Leucaena leucocephala*. The study was also done to evaluate the effect of tree age, resin content and particle ratio on particleboard properties. The particle ratio between species is 100E, 70E:30L and 50E:50L. The tree's age of *Eucalyptus pellita* used was 2 year and 3 year while the percentage of resin content is 8%, 10% and 12%. The modulus of rupture, modulus of elasticity, internal bonding and thickness swelling of particleboard were determined according to British Standard Institution (BS EN Standard). All the results for particleboard from *Eucalyptus pellita* meet the standard for internal bonding but did not meet the modulus of rupture, modulus of elasticity and thickness swelling standard. Particleboard made from mixed species meets the entire mechanical properties standard except the physical properties standard.