

PROPERTIES OF PARTICLE BOARD FROM LEUCAENA LEUCOCEPHALA AND
ACACIA MANGIUM

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ABSTRACT

THE PROPERTIES OF PARTICLEBOARD FROM LEUCAENA LEUCOCHEPHALA AND ACACIA MANGIUM

The purpose of this study is to evaluate the properties of the resin particles and the ratio of the percent of species. This study uses two different species of Petai Belalang (*Leucaena Leucocephala*) and Acacia (*Acacia Mangium*). There are two types of properties is studied in this thesis, namely the physical and mechanical properties. The study measured using Petai Belalang (100 %), then Acacia + Petai Belalang (50:50 %) and Acacia (100 %). Mechanical properties are studied by bending and internal bonding of particles, while the physical properties were studied with the thickness swelling and water absorption. This bending method looks at the consequences of how the strength of an object reaches a maximum when the particles are broken. For flexible method also it states the maximum elastic strength of a particle. The internal bond is to test stiffness when using the resin of 8%, 10 % and 12 %. Similarly to the method when comparing the ratio of the resin particles and the ratio of the survey. Thickness swelling and water absorption of resin and different ratios when increasing percent resin from 8 % to 12 %. Thickness swelling and water absorption decreased as the air contained in the particle is most less in 12 % and 8 % was the highest.