

**A STUDY ON THE EFFECTS OF PARTICLE SIZES ON  
PHYSICAL AND MECHANICAL PROPERTIES OF  
PARTICLEBOARD ON LESSER-KNOWN SPECIES – A  
REVIEW**

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## ABSTRACT

### **A STUDY ON THE EFFECTS OF PARTICLE SIZES ON PHYSICAL AND MECHANICAL PROPERTIES OF PARTICLEBOARD ON LESSER-KNOWN SPECIES – A REVIEW**

The Malaysia timber industry is still hinged on the usage of solid wood. As the main raw material for wood products, higher demand has resulting in the reducing number of solid timbers from natural resources in the wood industry. Not just that, the higher demand also resulted in the rising price of rubberwood (*Hevea brasiliensis*), as it is the main raw material in the manufacturing of particleboard. Due to that, initiatives in findings different substitution for rubberwood has been studied by previous researchers. The lesser-known species is acknowledged with its capability in having fast growth rates has been identified by researchers to be a great initiative in particleboard manufacturing industry. Based on the findings by the previous researchers, this paper presents a review of physical and mechanical properties of particleboard made from lesser-known species. For instance, Petai Belalang (*Leucaena leucocephala*) and Kelempayan (*Neolamarckia cadamba*). The effects of different particle sizes in particleboard manufacturing were studied with unscreened particles, 1.0 mm and 2.0 mm. The analysation of data showed that the different particle sizes were strongly affected by both physical and mechanical properties of the particleboard.