

**MECHANICAL PROPERTIES OF WOOD  
PLASTIC COMPOSITE FROM KELEMPAYAN  
SPECIES (*Neolamarckia cadamba*)**

**IQBAL ZAHIN AHMAD SHUHOR  
MUHAMMAD NIZAR ASYRAF ZULKAFLI  
MUHAMMAD HAFIZUDDIN BIN HASSAN  
MOHAMAD HAFIZ MOHAMAD PAUZI  
NURUL HIDAYAH SARIS**

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## ABSTRACT

### MECHANICAL PROPERTIES OF WOOD PLASTIC COMPOSITE FROM KELEMPAYAN SPECIES (*Neolamarckia cadamba*)

This research was producing wood plastic composite from Kelempayan species (*Neolamarckia cadamba*) wood dust. Wood plastic composite from Kelempayan species produced from two types of ratio (30:70 and 10:90) between sawdust (Kelempayan species) and plastic (Polypropylene) with the size of sawdust were 250 and 75  $\mu\text{m}$ . Mechanical testing were conducted in this research for bending and tensile strength. The result showed that sawdust from 75  $\mu\text{m}$  in size with ratio of 30:70 between sawdust and plastic is most suitable in producing wood plastic composite. It was concreted by bending testing that shown the wood plastic composite is very strength from 75  $\mu\text{m}$  in size with ratio of 30:70 between sawdust and plastic compare to the others. By using more Polypropylene (PP) in wood plastic composite can give advantage to the sawdust to bind each other with PP. The result of tensile testing also showed that the right amount of plastic and sawdust, could produce the board in extra strength and elasticity. Generally, using sawdust from 75  $\mu\text{m}$  in size with the ratio of 30:70 between sawdust and plastic is the most suitable percentage in mixing both of them for making the best wood plastic composite from Kelempayan species (*Neolamarckia cadamba*).