

**SOME SELECTED PROPERTIES OF POLYPROPYLENE  
COMPOSITE USING LUDAI PARTICLES AS FILLERS**

By

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## **ABSTRACT**

### **SOME SELECTED PROPERTIES OF POLYPROPYLENE COMPOSITE USING LUDAI PARTICLES AS FILLER**

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In this study thermoplastic composite was produced from particles of Ludai (*Sapium baccuttum*) mixed with polypropylene (PP). The filler-loading ratio used in the study was 10%, 30%, and 50%. Physical and mechanical tests such as thickness swelling, water absorption, flexural and tensile strength, elongation at break and elasticity modulus were carried to determine the effects of filler loading. The results show that thickness swelling (TS) and water absorption (WA) decreased with higher filler loading. The mechanical properties of flexural, tensile strength and elongation at break decreases significantly with higher filler while flexural and tensile modulus increases. Ludai particles are suitable to be used as fillers in the manufacture of Polypropylene-composite.