

**PROPERTIES OF KARAS (UNSCREENED SAWDUST) -
POLYPROPYLENE THERMOPLASTIC COMPOSITE IN
RELATION TO FILLER LOADING**

BY

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ABSTRACT

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In this study thermoplastic composite was produced from sawdust of Karas (*Aqualaria malaccensis*) without screening mixed with polypropylene (PP). The filler loading ratio used in study was 10%, 30% and 50%. Physical and mechanical test such as thickness swelling, water absorption, tensile strength and flexural, elongation at break and elasticity modulus were carried to determine the effects of loading. The result 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 also decreased with higher filler while flexural and tensile modulus increase . Karas sawdust are suitable to be used as a filler in the manufacture of polypropylene-composite.