

**SOME SELECTED PROPERTIES OF PAPER SLUDGE –
POLYPROPYLENE COMPOSITE**

by

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ABSTRACT

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This study was conducted to determine the suitability of paper mill sludge as filler in the manufacture of polypropylene thermoplastic composite. The effects of filler loading was also analysed. Based on the results of the experiments conducted, it was found that at higher filler loading the mechanical properties of tensile strain, elongation at break and modulus of rupture (MOR) decrease while the properties of tensile modulus and flexural modulus increases. The dimensional properties of water absorption and thickness swelling also increase at higher filler loading. It is thus concluded that paper mill sludge is a suitable material to be used as filler in the manufacture of thermoplastic composite.