WOOD PLASTIC FROM OIL PALM RESIDUE (*Elaaeis guineensis*): EFFECT OF FILLER LOADINGS AND PARTICLE GEOMETRY

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ABSTRACT

The properties of wood plastic composite from Oil Palm residue with addition of different amount of filler and particle size loaded to the board was ascertained. The amount of filler loaded are 10%, 20% and 30% while particle size used are $425\mu m$, 250 μm and 150 μm . Tensile test, bending test, impact, water absorption and thickness swelling test had been carried out to determine the physical and mechanical properties and hence determine the suitability of Oil Palm residue to be used as fillers in the production of thermoplastic composites. From the test done, it show that the less filler loaded the stronger the board will be and finally board 425 μm particles will result in better properties.