PROPERTIES OF KERUING BELIMBING SAWDUST-POLYPROPYLENE COMPOSITE IN RELATION TO PARTICLE SIZE AND FILLER LOADING

BY

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ABSTRACT

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This is a research of producing thermoplastic composite from Keruing belimbing *(Grandiflorus dipterocarpus)* wood dust. Wood dust from sawmill factory, and screening follow the size. The size is fines, 40 mesh, 60 mesh and lastly unscreened. The filler s followed is 10%, 30% and 50%. Tests such as bending, tensile, and water absorption are carried out. The result showed that 10% of composite is very strength compare to the other percentage. By using more Polypropylene (PP) can give chance to the wood dust bounded each other with PP. the results water absorption showed that the water could absorb into 30% lower than the other percentage. Generally, using 10% of wood dust and particle size is 40% the most suitable quantity to mix PP for making the best thermoplastic composite from Keruing belimbing.