

**MECHANICAL AND WATER ABSORPTION PROPERTIES OF BAMBOO
(*Gigantohloa scortechinii*) THERMOPLASTIC COMPOSITE**

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ABSTRACT

MECHANICAL AND WATER ABSORPTION PROPERTIES OF BAMBOO (*Gigantooohla scortechinii*) THERMOPLASTIC COMPOSITE

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Nowadays thermoplastic composite is one of a famous way to undertake the pure plastic product. Pure plastic is expensive compare to composite plastic. To produce a new product of composite plastic bamboo, **MECHANICAL AND WATER ABSORPTION PROPERTIES OF BAMBOO (*Gigantooohla scortechinii*)** was chosen by 3 – years old bamboo. The mechanical and water absorption of the bamboo thermoplastic composite was determined. The mechanical properties that used are bending strength beside the water absorption. From the bending strength it showed the modulus of rupture and modulus of elasticity. The observation was carry out by different of bamboo flour and polypropylene with different addition of Maleated anhydride polyprylene. From the study at 2% MAPP with ratio of 10:90 give the better MOR which is more tough and elastic compare to the others. And at 4% MAPP for 10:90 ratio give the best MOE, which is more elastic and can accep a high load. From the water absorption percentage observation it show that at 4% MAPP with ratio 10:90 or 30:70 have a good resistant to the water. To produce a good product it should high in MOR and low in MOE and percentage of water absorption to get the quality product.