PROPERTIES OF PHENOL-FORMALDEHYDE PARTICLEBOARD FROM BATAI SPP AT DENSITY 450 kg/m^3

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ABSTRACT

Particleboard is a panel product by compressing small particles of wood while simultaneous bonding them with an adhesive. In this project we use PF with 4%,6% and 8% resin content mixed with *Paraserianthes falcataria* wood particle. The properties of the board are determined by many type of test. Standard for particleboard test is the guideline to determine that board is fail or not. The study is to determine the strength the properties of mechanical and physical properties of particleboard. The strength of particleboard are influence by Modulus of Elasticity (MOE), Modulus of rupture (MOR), percentage of thickness swelling and water absorption. Other factor study show that effect the strength of particleboard are specific gravity, bulk density and particle geometry. At the end of the project shows that resin affect the strength of particleboard properties. The result in this study shows that the Batai spp. With 450kg/m^3 are not suitable to manufacture process.