ASSESSMENT OF MECHANICAL PROPERTIES BASED ON DIFFERENT DENSITY OF PARTICLEBOARD FROM SENTANG SPP (*Azadirachta excelsa*)

SITI ANIS ANIHA BINTI ISA

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ABSTRACT

The mechanical properties based on different density of the particleboard at 12% resin content from Sentang (*Azadirachta excelsa*) are being determined. Urea formaldehyde resin (UF) is used as a binder. The quality of the boards are evaluated by determining the bending properties, including the modulus of elasticity (MOE), modulus of rupture (MOR), screw withdrawal (SW) and nail withdrawal (NW). All board properties are significantly influenced by the board density. Only particleboard with the density of 700 kg/m^3 meets the requirement for the mechanical properties as stipulated in the EN standard (EN 310: 2003).