PROPERTIES OF PARTICLEBOARD MADE FROM *ACACIA MANGIUM* AND OIL PALM TRUNK IN RELATION TO DIFFERENT RESIN CONTENT

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PROPERTIES OF PARTICLEBOARD MADE FROM *ACACIA MANGIUM* AND OIL PALM TRUNK IN RELATION TO DIFFERENT RESIN CONTENT

The study is carried out to determine the properties of hybrid particleboard made from *Acacia mangium* and oil palm trunk as influenced by different resin content. The homogeneous layer of hybrid particleboard made by *Acacia mangium* and oil palm trunk were fabricated with three different ratio of resin content; 7%, 9% and 11% with the constant particle size of 1.0mm for both *Acacia mangium* and oil palm trunk. Urea formaldehyde (UF) is used as a binder with an addition of ammonium chloride hardener. The target board density is 600 kg/$m^{3.}$ The properties of bending strength, internal bonding (IB) and thickness swelling (TS) are evaluated based on Malaysian standard (MS 1036:2006). The findings of this research were done according to the factors that can highly affect the board properties which include different resin content and materials used. From the research, the higher resin content which is 11% provides better board properties compared to particleboard with 7% resin content. Not only that, board manufactured from admixture materials also shows great properties similar with board from oil palm trunk.