PROPERTIES OF PARTICLEBOARD FROM 25 YEARS OIL PALM TRUNK PARTICLES (*Elais guineensis Jacq*)

BY

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ABSTRACT

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A study was carried to determine the properties of particleboard made from 25 years oil palm trunk particles. Particleboards with a density of 700 kg/m^3 were fabricated. Adhesive used is urea formaldehyde. In this study, the effect of varying resin content, particles size and addition of wax of oil palm trunk particleboard on mechanical and physical properties was studied. The amount of resin used were 8% , 10% and 12%. Boards were fabricated using different three particles sizes; 1mm , 2 mm and unscreened. Boards were fabricated with wax and without wax. Increasing resin content resulted in higher value of MOR, MOE and IB, while physical properties improved. Larger particle size increases the mechanical properties while in physical properties the smaller particles size resulted to higher value. Effect of wax on mechanical properties has increase in MOR and MOE but decrease in IB while in physical properties improved.