PROPERTIES OF PARTICLEBOARD FROM SUGARCANE BAGASSE IN RELATION TO BOARD DENSITY AND RESIN CONTENT

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ABSTRACT

PROPERTIES OF PARTICLEBOARD FROM SUGARCANE BAGASSE IN RELATION TO BOARD DENSITY AND RESIN CONTENT

This study used Sugarcane Bagasse as a raw material in the manufacture of Particelboard (PB). Currently rubberwood supply is decreasing and limited in resources thus another fast growing species were promoted as very promising raw material for wood composite product. The objectives of this study are to determine the properties and to evaluate the effects of board density and resin content on PB properties. Target board density was 700 kg/m³ and 800kg/m3 with applied 7%, 9% and 11% of Urea Formaldehyde (UF) as a binder. The quality of the boards were evaluated by determine of bending properties including modulus of rupture (MOR), modulus of elasticity (MOE), internal bond (IB) strength and thickness swelling (TS) based on JIS standard. All of the results testing show the mechanical and physical properties of PB have meet the standard requirement based on JIS A5908:2003.