

**PHYSICAL AND MECHANICAL PROPERTIES OF ORIENTED
STRAND BOARD FROM SUGARCANE RIND**

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ABSTRACT

PROPERTIES OF ORIENTED STRAND BOARD FROM SUGARCANE RIND

This study use Sugarcane Rind as a raw material in the manufacture of Oriented Strand Board (OSB). Currently wood supply for wood industry are limited and decreasing rapidly. To overcome this problem, use of non woody as alternative resources are highlighten for the manufacturing of composite panel. The objective of this study are to determine the properties and evaluate the effects of submerged sugarcane rind and unsubmerged sugarcane rind of OSB properties. Another objective is to evaluate the effects of resin content of OSB properties. Target board density was 700kg/m^3 with uses of Phenol Formaldehyde resin at 7%, 9% and 11% resin content. The mechanical and physical properties of the boards were evaluated by determine the bending poperties which consists the Modulus of Rupture (MOR), Modulus of Elasticity (MOE), Internal Bond (IB) and Thickness Swelling (TS) based on BS EN standard. The results show some of the mechanical and physical properties of OSB have meet the minimum requirement based on BS EN 300:1997 OSB Type 1.