## Addition Effect of Rambutan Peels (Nephelium lappaceum) on Corncob Briquettes (Zea mays L) Using Teak Leaf Adhessive (Tectona grandis)

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## **ABSTRACT**

Indonesia is a tropical country that has corncob and rambutan plants. Corn and rambutan plants have many benefits. Currently, corn and rambutan have been widely used but not optimal, especially for solid waste. The solid waste of corn cobs and rambutan peels can be converted into briquettes which can be used further as alternative fuels that are environmentally friendly. Briquettes are a block of material that can be used as fuel to start and maintain a fire. This study aims to determine the characteristics and determine the best composition of charcoal briquettes produced from activated charcoal from corn cobs and rambutan peels using teak leaf adhesive. This study used experimental methods and physical characteristics of briquettes with three variations of the composition of the raw material mass of activated charcoal from corn cobs and rambutan peels with a composition ratio of 20%:80%, 40%:60%, and 50%:50% with a total mass of 30 briquettes. gr using teak leaf adhesive 9 gr. The authoring method used is carbonization. The results showed that the higher the composition of the rambutan peel, the higher the calorific value and the lower the ash content. The best composition of briquettes made from corn cobs and rambutan peels is with a ratio of 50%:50%, some of the characteristics comply with SNI with a moisture content of 1.920%, ash content of 6.33%, density of 0.83 g/cm3, density of kamba 0.1809 g/cm3, combustion rate 0.043 gr/s, compressive strength 0.651 kg/cm2, and heating value 5280 cal/gr. These characteristics indicate that charcoal made from corn cobs and rambutan peels has the potential to be reused into briquettes that meet SNI

**Keys Word**: Briquettes, Corncob, rambutan peels, teak leaf.