

# UTILIZATION OF COCONUT SHELL INTO BRIQUETTES WITH TEAK LEAVES ADHESIVE

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## ***ABSTRACT***

*Briquette is a solid fuel from biomass that can be used as an alternative energy source. One of the raw materials for biomass that can be used is coconut shell. The adhesive used in this study uses teak leaves, teak plants are so abundant around the community that they are easy to obtain. This study aims to determine the best composition of coconut shell briquettes with teak leaves adhesive and also to determine the characteristics of the resulting briquettes. The research method used is an experimental method and the physical characteristics of the briquettes. With three variations in composition from the mass of teak leaves adhesive 30%, 35%, 40% of the weight of coconut shell charcoal raw material with a ratio of 1:3. The results showed that coconut shell charcoal briquettes with 35% teak leaves adhesive composition in variation 2 showed the best value results from several other comparisons and had met SNI with a calorific value was 6166 cal/gr, moisture content was 6.2%, ash content 7, 11%, density 1.88 gr/cm<sup>3</sup>, density kamba 0.67 gr/cm<sup>3</sup>, combustion rate was 0.067 gr/s, compressive strength 2.62 kg/cm<sup>2</sup>.*

**Key Words** : *Briquettes, coconut shell, teak leaves*