

**The Analysis Of The Manufacture Of Briquettes With The Raw Material  
Thorny Pandanus (*Pandanus Tectorius*) And Pine Wood (*Pinus Merkusi*)  
Using The Adhesive Material Of Tapioca Flour**

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**ABSTRACT**

Briquette is a solid fuel as source of energy alternative to fuel oil and is derived from organic material that has undergone the process of authoring and compression with a specific press power. The raw material commonly used as a briquette in the form of wood, twigs, leaves, agricultural waste and forestry. The briquettes used by first done the process of composing. The raw material used in the form of flowers pandan berduri. Flowers thorny pandanus selected because the amount is abundant and easily obtained. The existing problems in the manufacture of briquettes of sawdust sengon i.e. the calorific value possessed by the briquettes flowers thorny pandanus is still less than the calorific value of standard briquettes. To raise its calorific value is carried out the addition of pine wood. Tte of this study is to determine the characteristics of the briquettes flowers thorny pandanus and wood pine by using an adhesive derived from tapioca flour. The comparison between the composition of the fruit pandan spiked with the powder of pine wood that is 25% : 75%, 50% : 50%, 75% : 25%. The process of making briquettes by pyrolysis of the raw material, refining the raw material, and printing. Each number of the adhesive used 10% of the weight of raw material the Results of this study, the briquette bunga thorny pandanus and wood pine not meet the Indonesian National Standard (SNI 1999-2000). The composition of the best owned briquettes with a composition of PBSKP2 which is made of perbandingan composition amounted to 50% flower pandan beduri and 50 % wood pine. Briquettes with a composition of PBSKP2 mehave the value of the water content by 11,46 %, ash content of 2.8 %, a density of 0.63 g/cm<sup>3</sup>, and the nileai heat of 4762,95 cal/gr.

**Keywords:** briquettes, flowers thorny pandanus, pine wood.