The Teak (Tectona Grandis L.) POWDER BRICKET WITH RANDU LEAVES (Ceiba pentandra G.))

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ABSTRACT

Briquettes are fuels made from agricultural biomass charcoal which contains carbon and has a high heating value. Raw materials that can be used as briquettes are biomass such as agricultural waste, twigs, teak sawdust. Raw materials that have the potential to be used as charcoal briquettes are teak sawdust by going through a pyrolysis process to reduce water content as the main ingredient and leaf litter as adhesive. In this study, carbonized teak sawdust and randu leaves were used as the adhesive for making briquettes. The purpose of this study was to determine the characteristics of the briquettes produced from teak sawdust using randu leaves as the adhesive. The method used is the wet method, namely using fresh adhesive. The results of this study found that the entire composition of the sawdust charcoal briquettes using randu leaf adhesive in accordance with SNI. The best composition is in the JR3 composition, namely 30gr teak sawdust and 16gr randu leaves, with a moisture content value of 5.52%, an ash content of 5.28%, a calorific value of 5749 cal / g, a density value according to the commercial briquette standard, namely 0, 4485 g / cm^3, and the compressive strength value is not in accordance with the English briquette standard with the value obtained is 3.4845 kg / cm^2.

Keywords: Briquettes, Teak Sawdust, Randu Leaves.