

***Utilization of Rice Husk Waste as Fuel for Rice Husk Charcoal
Briquettes with Tapioca Starch Adhesive***

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ABSTRACT

Utilization of rice husk waste into briquettes is one of the efforts made to reduce the use of fossil fuels. This study aims to determine the best composition of using tapioca flour adhesive on the quality of rice husk briquettes and the characteristics of rice husk charcoal briquettes with tapioca flour adhesive. Data analysis used in this study used four percentages of raw material for rice husk with tapioca flour adhesive, namely 90%: 10%, 85%: 15%, 80%: 20%, and 75%: 25%. The coagulation method used in this research is pyrolysis in this process which lasts for 2-3 hours using a temperature of 200-300°C. The best composition variation is the SV 2 variation with a water content of 7.979 gr/cm³ (SNI<8), an ash content of 5.4122% (SNI<8) density 1.1924 gr/cm³, Kamba density 3.2231 gr/cm³, as well as a combustion rate of 0.06321 gr/s, and a calorific value of 5136.62688cal/gr (SNI > 5000).

Keywords: rice husks, pyrolysis, briquettes, calorific value