Pemanfaatan Limbah Ampas Tahu dan Serbuk Gergaji Kayu Kamper Sebagai Briket dengan Perekat Kulit Singkong (Manihot utilissima). Utilization of Tofu

Dregs and Camphor Wood Sawdust as Briquettes with Cassava Peel (Manihot Utilissima) Adhesive. Supervised by: Zeni Ulma, S.ST., M.Eng.

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ABSTRACT

Indonesia's oil production has decreased significantly since 2001, so the country needs to find alternative energy sources to replace fossil fuels. this is the main problem encountered. As a result, various small-scale alternative energy sources such as biomass, biogas, wind, solar, hydropower, biochar, and others must be found and developed. Based on the research and problems above, a study was carried out with the title "Utilization of Tofu Dregs and Camphor Wood Sawdust as Briquettes with Cassava Peel Adhesive (Manihot utilissima)". The raw material for tofu dregs is cleaned, camphor wood sawdust is pyrolyzed using a furnace with a temperature of 300-350°C for 4-5 hours. The research was made of five raw material compositions of tofu dregs and camphor sawdust, respectively 100% : 0%, 75% : 25%, 50% : 50%, 25%: 75%, and 0%: 100%. Cassava skin adhesive, it will be made constant at 15% of the complete mass of the briquettes (30 gr). The best composition met the requirements of SNI Briquettes No. 01/6235/2000 found in V4 (25% tofu pulp content: 75% camphor wood sawdust) with an average moisture content of 2,725%, an average ash content of 6.79%, the heating value is 5.200,63 cal/g, the density (density) is 1,136 gr/cm3, and the kamba density is 0,35 gr/cm3.

Keywords: Tofu Dregs, Briquettes, Cassava Skin (Manihot utilissima), Pyrolysis, Camphor Wood Sawdust.