BAYUR (Pterospermum javanicum) sawdust WASTE BRICKET WITH ADDITIONAL WASTE WOOD OIL AND BANANA SKIN (Musaceae L.)

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ABSTRACT

Charcoal briquettes are solid fuels that contain carbon and have a high heating value. Raw materials that can be used as briquettes are biomass such as twigs, agricultural waste and bayur sawdust. Potential raw materials used as charcoal briquettes from bayur wood processing by carrying out a pyrolysis process to reduce water content as charcoal raw material. Banana peels as an adhesive material derived from the outer banana and used waste cooking oil as an additional ingredient. In this study using carbonized bayur sawdust and banana peels made briquettes materials. The purpose of this study was to determine the characteristics of the briquettes produced from bayur sawdust and banana peels. The results showed that the entire composition of bayur sawdust charcoal briquettes with banana peel adhesive in accordance with SNI standards. The best composition is BP 3; 65% grams of bayur sawdust and 35% grams of banana peel, with a moisture content of value 7.89%, ash content of 8,27%, heating value of 27630,65 cal/g, density value according to standart of commercial briquette is 0.4567 g/cm3, and the compressive strength value are not in accordance with the English briquette standards with a value of 1.17 kg/cm2.

Keywords: Briquettes, Banana Peel, Bayur Sawdust