Pembuatan Briket Cangkang Biji Karet Dengan Campuran Plastik LDPE (*Low Density Polyethylene*) (*Making of Rubber Seed Shell Briquette Mixed with LDPE Plastic (Low Density Polyethylene)*)

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ABSTRACT

Rubber seed shells are plantation waste that has not been widely used. Rubber seed shells and materials that have high heat value such as LDPE plastic have the potential to be used as raw material for making alternative fuel briquette. Briquette is a solid fuel derived from biomass waste through the pyrolysis and compression process. This research was conducted by making rubber seed shell briquettes and LDPE plastic. The variable used is a mixture of rubber seed shell: LDPE plastic that is 100%: 0%, 95: 5%, 90%: 10%. Adhesives used in the form of tapioca flour with a mixture of 9% of the weight of the material. The purpose of this study was to determine the quality of briquettes produced from a mixture of rubber seed shells and LDPE plastics. The results showed that the rubber seed shell briquette with LDPE plastic mixture based on its characteristics such as water content, ash content, and heating value, was in accordance with SNI 1-6235-2000. The best composition is in CP3 which is 90% rubber shells charcoal with 10% LDPE plastic, treatment in CP3 has a moisture content of 2.02%, ash content of 4.38%, heating value of 6356.01 cal / gr, density of 0.709 gr / cm3, kamba density is 0.347 gr / cm3, compressive strength is 7.78 Kg / cm2, and the combustion rate is 0.074 gr / s.

Keywords: *briquette, rubber seed shells, LDPE plastic.*