

**Studi Penambahan Tetes Tebu (*Molasses*) sebagai Perekat dengan Bahan Limbah Sekam Padi terhadap Peningkatan Nilai Kalor dan Laju Pembakaran Bio-Briket (*Study of Additions Molasses as Adhesives to Increase Calorific Value and Firing Rate of Rice Husk Bio-Briquette*)**

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**ABSTRACT**

*Bio-Briquette is one of alternative energy from biomass as a substitute for oil fuel. The quality of briquette mostly affected by its adhesive and raw materials. Indonesia has a huge potential of natural resources especially in agrarian sector which produce a waste such as rice husk and Molasses. Molasses obtained from sugar crystallization that has ethanol content which can increase the burning of briquettes. Utilizations of rice husk as raw materials of briquette aims to increase its economical value, while utilizations of Molasses as adhesive expected can produce high quality briquette based on its pastiness. This research aims to determine the best result of two factors, there are percentage of adhesive and raw materials (10%, 20%, 30%) and pyrolysis treatment. According to the research reveals that highest calorific value is obtained by briquette with 30% percentage of Molasses and through pyrolysis treatment while the lowest calorific value is gained by briquette with 10% percentage of Molasses without pyrolysis treatment. The rate of firing briquette shows a linear result, where briquette with 30% percentage of Molasses and through pyrolysis treatment has the best result with the rate of firing is 0,24 gr/s. So, this research proves that Molasses as adhesive material with a pyrolysis treatment can increase the quality of briquette.*

**Keywords:** Biomass, Briquette, Rice Husk, Molasses, Pyrolysis.