



Preparation of Biocoke from Palm Oil Residue

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Abstract. Biocoke is a bio-solid fuel which is produced from biomass resources such as waste from agro-processing industry. Biocoke is expected to used as a co-fuel with coke and coal for cupola furnace in metal casting industry and boiler. The expected properties of biocoke for industrial use should have the following properties: 1) bulk density is higher than 1.1 g/cm³, 2) maximum compressive strength is higher than 20 MPa and 3) Calorific value is higher than 4,000 kcal/kg. In this research, biocoke was prepared from palm oil residue which is the waste form palm oil milling process. The effect of experimental condition on properties of the prepared biocokes, i.e., bulk density, compressive strength and calorific value were investigated. The obtained results could suggest the best conditions for the preparation of biocoke from palm oil residue for industrial use.

Keywords: Alternative Energy, Bio-solid fuel, Biocoke, Palm Oil Residue.