**Study of Pulp and Paper Making Characteristic Produces from**

**Sago Fiber Waste**

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**Abstract**

This study is about the characterization of pulp and paper from sago fiber waste. The process of its has several stages: preparing solution, sago fiber analysis, pulping process, and printing process. The required solutions are NaOH solution (technical), 10% BaCl2 solution, 0.1 N HCl solution, 60% ethanol solution, phenolphthalein indicator solution, 1% starch indicator solution, sindur methyl indicator solution of NaOH titration, borax solution, Na₂S solution (technical), and THIO solution (1 N; 0.1 N). The pulping process is carried out by inserting sago fiber and solutions into a rotary digester machine for 4 hours (170oC). Then, it removed after 24 hours and dried by spinner machine. Characterizations on the sample include: chemical and physical properties, mechanical properties, and optical properties. The result shows that sago fiber waste can be used as raw material for paper. The value of its are grammage of 62 g/m2, thickness of 0.1294 mm, water absorption capacity of 627.27 g/m2, water content of 9.83%, ash content of 26.26%, pH of 7.9, tensile strength of 14.22 MD and 13.33 CD, brightness of 19.8%, and opacity 22.78. The size of the packaging paper by sago fiber waste is 20 µm.

**Keywords:** Pulp, Paper, Sago Fiber Waste