

Test analysis of viscosity values of cassava-based biotethanol fuel from the distillation process and Pertamina fuel mixture

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ABSTRACT

This research aims to determine the effect of adding cassava bioethanol to Pertamina fuel using the process of making bioethanol by distillation on viscosity and flash point values. The method used is experimentation using variations of PBi 10, PBi 30, PBi 50, PBi 70, PBi 90 and PBi 100. The process of making bioethanol is carried out at the Jember State Polytechnic, viscosity value testing is carried out at the Sepuluh Nopember State Institute and flash point testing at the University Brawijaya. The results of the research show that the greater the percentage of bioethanol added, the higher the viscosity value obtained. When compared with temperature variations, namely 68°C and 70°C, the greater the temperature used, the higher the viscosity value will be. The highest kinematic viscosity at a temperature of 68 °C is at PBi 100 with a value of 0.558 cst.

Keywords: *Bioethanol, Distillation, Cassava, Viscosity*