

***Analysis Of Exhaust Emission Tests On 4-Step 150 CC Motorcycles
with Variations Of A Mixture Of Peralite and Bioethanol
Made From Cassava***

By

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ABSTRACT

In Indonesia, almost all vehicles use fuel oil as the main fuel. This study was conducted to determine the results of the comparison of pure pertalite fuel with pertalite-bioethanol and the best mixture of exhaust emissions. This research method is an experimental method using tables and graphs to process data, the test style used is Krisbow EPSG4 gas analyzer for the data taken is CO, HC, CO₂, O₂ lambda value using 1500, 3000, 5000 rpm rotation. The bioethanol has an alkohol content of 94% using a mixture presentation of 5%, 10%, 15%, 20%, 25%, 30%, then applied to a 4-stroke 150 CC motorcycle in 2015. The test results show that the addition of bioethanol as the engine speed increases is able to produce better exhaust emissions compared to pertalite. The best mixed fuel is PBE25 produces lower exhaust emissions at 5000 rpm, the resulting content is: CO of 0.06%vol, HC of 347 ppm, CO₂ of 10.8%vol, O₂ of 0.59%vol.

Keywords : Bioethanol, Exhaust Emissions, Lambda Value