THE EFFECT OF VARIATIONS IN PERTALITE AND ETHANOL MIXTURES ON EXHAUST GAS EMISSIONS IN VEHICLES4 STEP110 CC

Isadur Rofiq
Study Program of Automotive Engineering
Engineering Departement

ABSTRACT

Mobility is a necessity for human life every day, constantly moving and moving from one place to another, almost all activities can be done with the help of machines and technology such as motorbikes which have helped shorten travel time. However, excessive motorbike modifications are often found which disturb the public and violate applicable laws in Indonesia, such as the exhaust which many motorbike users do by changing the factory standard exhaust to a free flow exhaust, thus disturbing the comfort of other road users because of the sound from the free exhaust. flowing too noisy. This research aims to determine sound intensity reduction and heat resistance using cotton fiber glasswool, sugarcane fiber glasswool and mixed fiber glasswool. In this study, the length and width of the composite fiber were 30 cm and 1 cm thick. Sound interference testing was carried out on a 150 cc Vixion motorbike with engine speed variations of 2000 rpm, 3000 rpm, 4000 rpm. In this study, the best maximum interference level (db) was found in randu fiber glasswool, namely 88.8 db at rpm 2000 with a reduction in sound interference of 2.73% and randu fiber glasswool, sugarcane fiber glasswool, mixed fiber glasswool had high resistance. hot at 300 °C, but burns completely at 300 °C within 30 minutes.

Keywords: Sound intensity, free flow exhaust, heat resistanc