World Academy of Science, Engineering and Technology
International Journal of Aerospace and Mechanical Engineering
Vol:8, No:09, 2014

Effects of Ingredients Proportions on the Friction Performance of a Brake Pad Material

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Abstract : In this study, a brake friction material composition was investigated experimentally related to the effects of the friction modifiers and abrasive proportions on the tribological properties. The investigation was based on a simple experimental formulation, consisting of seven friction materials with different proportions of abrasives (ZrSiO4 and Fe2O3) and friction modifiers (cashew dust). The friction materials were evaluated using a Chase friction tester. The tribological properties, such as the wear resistance and friction stability, depending on the test temperature and the number of braking were obtained related to the friction material ingredient proportions. The results showed that the tribological properties of the brake pad were greatly affected by the abrasive and then cashew dust proportion.

Keywords : brake pad, friction, wear, abrasives
Conference Title : ICAMAME 2014 : International Conference on Aerospace, Mechanical, Automotive and Materials Engineering
Conference Location : Paris, France
Conference Dates : September 22-23, 2014