

عنوان مقاله:

Effect of short fibers on specific wear rate and friction coefficient of brake friction materialsV

محل انتشار:

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خلاصه مقاله:

Automotive brake pad is one of the most widely used composites. Due to the complex structure and formulation of these composites, designing the formulation of brake pad is a challenging issue. Among various ingredients, short have significant role to accomplish desired quality. In this work, effects of different fibers on the main characteristics of automotive brake pads (coefficient of friction and specific wear rate) were investigated using one variable at a time method. Glass fiber, ceramic fiber, carbon fiber, cellulose fiber and aramid fiber as the most widely used fibers considered in this study. A Chase type friction tester has been used for performing experiments and evaluation of the brake pads. The results show that carbon fiber and glass fibers increase friction coefficients and cellulose fiber has low impact on this parameter. Highest to lowest wear rates were obtained using cellulose fiber, aramid fiber, glass fiber, carbon fiber and ceramic fiber. The optimum values for specific wear rate and friction coefficient were found to be 3.03×10^{-7} (m³/m.N) and 0.507, respectively.

کلمات کلیدی:

brake pad, specific wear rate, friction coefficient, fiber

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