

Method for Evaluating Brake Friction Materials Using High-Temperature Friction Test Apparatus

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In the case of the speedup of the railway vehicle, it is required to develop brake friction materials usable under a thermal load increased due to the improvement of braking force. A full-size bench test is essential for evaluating the performance of the mechanical brake conclusively, but it takes a lot of time and efforts to evaluate the friction coefficient of the brake friction materials at high temperature. Therefore, we investigate a method for evaluating the brake friction materials more easily than evaluating them using a full-size bench test. This paper introduces a method for quantitatively evaluating the friction coefficient at arbitrary temperature using a high-temperature friction test apparatus, and the availability of this method by comparing the results obtained by this method with that obtained by a full-size bench test.