

عنوان مقاله:

A Case Study of Three Different Brake Pads Used in Iranian Rail Systems

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خلاصه مقاله:

Brake system and its components are of high importance in rail transportation systems. In this regard, brake linings, pads and blocks are especially important and this is why periodic evaluation of these parts is common practice in all rail systems. In this paper, some characteristics of three types of brake pads (friction materials in disc type brake mechanism) named types A, B and C (not to reveal the brand types) used in Iranian railways are compared against each other. Type A is an European product and the other two are Iranian pads manufactured domestically at different stages (type B is a new product and type C is an old one). The surface of pads, its compound, density, porosity, water adsorption, and impact strength and friction coefficient are evaluated. By comparing the results, it is appeared that the European brake pad possessed the lowest porosity, the highest impact strength and variation of its friction coefficient was more stable than the others. In addition, the performance of the type C compared with type B seemed to be much better in regard to wear rate and impact strength.

کلمات کلیدی:

Rail Brake, Friction Lining, Rail Safety, Brake Pads, Iranian Railways Industries, Wear

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