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JIS D 4414-2 : 1998

Automotive parts — Brake linings and disc brake pads — Part 2: Test procedure of seizure to ferrous mating surface due to corrosion (Water soak method)

ICS 43.040.40

Descriptors : road vehicle components, road vehicles, brake linings, disc brakes, brake pads, rust, testing, immersion tests (corrosion)

Reference number : JIS D 4414-2 : 1998 (E)



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D 4414-2:1998

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

In this revision, the former Standard, **JIS D 4414 : 1996** is replaced with **JIS D 4414-1 : 1998** and **JIS D 4414-2 : 1998**, to conform with the International Standard basically, giving priority to the testing method "Moisture absorption method" of **ISO 6315 : 1980**.

The reproduced seizing condition, however, between the moisture absorption method of the **ISO** Standard and the water soak method of **JIS** Standard differs essentially, therefore, each method above-mentioned is described in the part 1 and part 2 of **JIS D 4414**, respectively.

The water soak method in the part 2 will be proposed to **ISO** in the future.

JIS D 4414 constitutes of the following two parts.

- JIS D 4414-1** *Automotive parts — Brake linings and disc brake pads — Part 1: Test procedure of seizure to ferrous mating surface due to corrosion (Moisture absorption method)*
- JIS D 4414-2** *Automotive parts — Brake linings and disc brake pads — Part 2: Test procedure of seizure to ferrous mating surface due to corrosion (Water soak method)*

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Automotive parts— Brake linings and disc brake pads —

Part 2 : Test procedure of seizure to ferrous mating surface due to corrosion (Water soak method)

1 Scope This Japanese Industrial Standard specifies the test procedure of seizure to ferrous mating surface due to corrosion of drum brake linings (hereafter referred to as “linings”) and disc brake pads (hereafter referred to as “pads”) to be used on road vehicle brakes.

2 Normative reference The following standard contains provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standard indicated below shall be applied.

JIS R 6252 *Abrasive papers*

3 Definition For the purpose of this Standard the following principal definition shall apply :

a) **corrosion seizing force** The force necessary to peel off the bond formed by corrosion produced by such means that a lining or pad is immersed in the immersion liquid for a prescribed duration and then allowed to stand on the brake drum or brake disc in a room for a prescribed duration with an appropriate load applied.

4 Temperature and humidity for testing In general, the test shall be carried out in a room at a temperature $23\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ and relative humidity $(50 \pm 5)\%$.

5 Equipment and apparatus The equipment and apparatus shall be as follows :

- a) Compression or tensile testing machine or apparatus.
- b) Pressurizing jig shall be used for the case of test piece (refer to Attached Fig. 1).

6 Sample

6.1 Lining The sample of lining shall be as follows :

- a) Test pieces of $25\text{ mm} \pm 0.1\text{ mm}$ in width, $25\text{ mm} \pm 0.1\text{ mm}$ in length, and 5 mm in thickness shall be cut out from a new regular lining, each end face (surface of 25 mm square) shall be finished smooth and parallel to each other using abrasive paper of 120 in grain size specified in JIS R 6252, and then, the dust generated by polishing shall be completely removed. If the thickness of 5 mm is not available, the specimen shall be sampled as thick as possible.
- b) The mating material (a plate of 50 mm in width, 50 mm in length, and 5 mm in thickness) shall be the one equivalent to that of brake drums, and the surface (surface of 50 mm square) with which the test piece is brought into contact shall be finished to a surface roughness of $6.3\text{ }\mu\text{mRy}$ or under by polishing.