



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 5764-2023

Replacing GB/T 5764-2011

Clutch facings for automobiles

汽车用离合器面片

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for

Standardization - Part

1. Rules for the Structure and Drafting of Standardizing Documents. This Document replaced GB/T 5764-2011 Clutch Facings for Automobiles. Compared with GB/T 5764-2011, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications.

- a) Changed the "Scope" (see Clause 1 of this Edition; Clause 1 of the 2011 Edition);
- b) Add Normative References of GB/T 23263 (see 5.7.1 of this Edition), JC/T 2268 (see 5.7.2 of this Edition), GB/T 26125 (see 5.7.3 of this Edition);
- c) Delete the "Classification" (see Clause 4 of the 2011 Edition);
- d) Change the thickness difference requirements of each piece of "dimensional deviation" (see 4.2 of this Edition; 5.2 of the 2011 Edition);
- e) Change "friction property" (see 4.4 of this Edition; 5.4 of the 2011 Edition);

1 Scope

GB/T 5764-2023 is the Chinese standard for automotive clutch facings, the friction rings riveted or bonded to the clutch driven plate. A facing has to hold a defined coefficient of friction across a very wide temperature range, resist fade and wear, survive the burst speed of the plate, and do all of it without a shudder that the driver can feel. The standard sets the dimensional deviations, including the thickness difference across a single facing, the density and hardness, the friction performance and its stability with temperature, the burst strength, the wear rate and the requirements on harmful constituents, a clause new to this edition, together with the corresponding test methods including the determination of the limits on harmful composition, the inspection rules and the marking, packaging, transport and storage. The 2023 edition replaces GB/T 5764-2011, which is superseded, and takes effect on 1 July 2024. For a friction material maker or a clutch assembler supplying the Chinese market this is the acceptance text.

This Document specifies the requirements, test methods, inspection rules, marking, packaging, transportation and storage of clutch facings for automobiles. This Document is

applicable to winding dry friction clutch facings for automobiles (hereinafter referred to as "facings").

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 2828.1 Sampling procedures for inspection by attribute - Part

1.Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

GB 5763 Brake linings for automobiles

GB/T 23263 Determination of asbestos in products

GB/T 26125 Electrical and electronic products - Determination of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)

JB/T 7498 Coated abrasives - Abrasive paper JC/T 1065 Constant speed friction test

machine JC/T 2268 Measurement of copper and other elements in brake friction materials

3 Terms and Definitions

For the purposes of this Document, the terms and definitions given in GB 5763 and the following apply.

3.1 Max flexibility; delta During the bending test, the distance of the top or bottom surface of the span center of the test piece deviates from the original position at the moment when the test piece breaks.

3.3 Rotate bursting test strength The limit rotating speed of the facing that is rotated at a specified angular acceleration on a rotational strength testing machine until it breaks.

4.1 Appearance

4.1.1 The surface of the facing shall be smooth after processing, and there shall be no defects such as blisters, cracks, oil stains, unevenness, warping, and distortion that may affect use.

4.2 Dimensional-deviation The basic dimensions of the facings are shown in Appendix A or determined by the purchaser. The size deviation and thickness difference of each piece shall comply with the provisions of Table 1.

4.3 Flatness The flatness of the facing under the specified load shall comply with the

provisions of Table 2.

4.4 Friction property

4.5 Bending property The bending strength and maximum strain of the facings shall comply with the provisions of Table 4.

4.6 Rotate bursting test strength The rotate bursting test strength of the facings under specified acceleration shall comply with the provisions of Table 5.

4.7 Hazardous ingredients

4.7.1 The facings shall not contain asbestos.

5 Test Methods

5.1 Appearance The appearance quality is checked visually.

5.2 Dimensional-deviation The outer diameter and inner diameter are measured by a vernier caliper with an accuracy of no less than 0.02mm; while the thickness is measured by a micrometer with an accuracy of no less than 0.01mm.

5.4.3 Test conditions

5.4.3.1 The pressure of the test piece is 0.49MPa.

5.4.4 Test procedures

5.4.5.1 The coefficient of dynamic friction at each test temperature is calculated according to Formula (1).

5.5.1 Test piece

5.5.1.1 Three test pieces are prepared from the same facing along the friction direction.

5.5.1.2 The thickness of the test piece shall be the thickness of the facing, with a length of 55 mm ±

0.5 mm and a width of 15 mm ±

0.2 mm. If the length of the test piece is less than 55 mm, take 40 mm ±

0.5 mm. When sampling, the grooves in the test piece shall be avoided.

5.5.3 Test procedures

5.5.3.1 The thickness of the test piece shall be measured by a micrometer at three points in the middle; and the arithmetic mean value shall be taken. The width of the test piece shall