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

GB/T 22838.5-2024

Replacing GB/T 22838.5-2009

**Determination of physical characteristics for cigarettes and
filter rods - Part 5: Cigarettes draw resistance and filter rods
pressure drop**

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 5 of GB/T 22838 "Determination of physical properties of cigarettes and filter rods". GB/T 22838 has been published as follows part.

- Part 1: Cigarette packaging and labeling;
- Part 2: Length photoelectric method;
- Part 3: Circumferential non-contact optical method;
- Part 4: Cigarette quality;
- Part 5: Cigarette draw resistance and filter rod pressure drop;
- Part 6: Hardness;
- Part 7: Cigarette dust content;
- Part 8: Moisture content;
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- Part 12: Appearance of cigarettes;
- Part 13: Filter rod roundness;
- Part 14: Appearance of filter rods;
- Part 15: Definitions and measurement principles for the determination of cigarette ventilation;

--- Part 17: Determination of tobacco drop from cigarette ends - Vibration method.

This document replaces GB/T 22838.5-2009 "Determination of physical properties of cigarettes and filter rods Part 5: Cigarette draw resistance and filter rod pressure Compared with GB/T 22838.5-2009, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added the scope of application (see Chapter 1);
- b) Added some terms and definitions (see 3.6, 3.7, 3.8, 3.9);
- c) The content of "Test Conditions" has been changed (see Chapter 4, Chapter 4 of the 2009 edition);
- d) The content of "Instruments and Equipment" has been changed (see Chapter 5, Chapter 5 of the 2009 edition);
- e) The requirements for "sampling and sample preparation" have been deleted (see Chapter 6 of the 2009 edition);
- f) The content of "Test Procedures" has been changed (see Chapter 6, Chapter 7 of the 2009 edition);
- g) Added requirements for rounding off of numerical values of results (see Chapter 7);
- h) Added the content of "calibration method, calibration device, certificate, precision and correction method of pressure drop transfer standard" (see Appendix A).

This document is modified to adopt ISO 6565:2015 "Standard conditions and measurements for draw resistance and filter pressure drop of cigarettes and tobacco products".

This document has the following structural adjustments compared to ISO 6565:2015.

--- Chapter 5 corresponds to Chapter 4 of ISO 6565:2015;

--- Chapter 6 corresponds to Chapter 5 and Chapter 6 of ISO 6565:2015, of which 6.1 corresponds to Chapter 5 of ISO 6565:2015, and 6.2 corresponds to Chapter 6 of ISO 6565:2015.

Should comply with Chapter 6 of ISO 6565:2015;

--- Appendix B corresponds to Appendix C of ISO 6565:2015;

--- Appendix C corresponds to Appendix B of ISO 6565:2015.

The technical differences between this document and ISO 6565:2015 and their reasons are as follows.

--- Added relevant content on regulating and testing atmosphere (see Chapter 4) to clarify the test condition requirements;

- Changed the requirements for instruments and equipment (see Chapter 5), changed the notes to requirement clauses (see 5.3.1), and Describe the content;
- Changed the requirements for positive pressure and negative pressure instruments (see Chapter 6), and changed the notes to requirement clauses (see 6.1.3, 6.1.4, 6.2.3), combine and express repeated contents;
- Added the conversion relationship between different result units and the requirements for numerical rounding (see Chapter 7) to improve the accuracy of result conversion.

Certainty.

The following editorial changes were made to this document.

- The name of the document was changed to "Determination of physical properties of cigarettes and filter rods Part 5: Cigarette draw resistance and filter rod pressure drop";
- Deleted the note to Chapter 3 of ISO 6565:2015;
- Deleted the note in 4.1 of ISO 6565:2015;
- Deleted the notes to A.3.2.1, A.3.2.4 and A.4.1.1 in ISO 6565:2015.

Introduction

The physical properties of cigarettes and filter rods are important indicators for evaluating the quality of cigarette production and processing. GB/T 22838 "Physical Properties of Cigarettes and Filter Rods" the determination of" is planned to consist of the following 16 parts according to the different detection objects and detection methods.

- Part 1: Cigarette packaging and labeling. The purpose is to specify the measurement methods for cigarette packaging labeling and cigarette packaging.
- Part 2: Photoelectric length method. The purpose is to specify the photoelectric determination method of cigarette and filter rod length.
- Part 3: Non-contact optical method for the circumference of cigarettes and filter rods. The purpose is to specify the non-contact optical determination of the circumference and ovality of cigarettes and filter rods.
method.
- Part 4: Cigarette quality. The purpose is to specify the method for determining cigarette quality.
- Part 5: Cigarette draw resistance and filter rod pressure drop. The purpose is to specify the determination method and standard of cigarette draw resistance and filter rod pressure drop condition.
- Part 6: Hardness. The purpose is to specify the method for determining the hardness of

cigarettes and filter rods.

--- Part 7: Cigarette dust content. The purpose is to specify the method for determining the dust content of cigarettes.

--- Part 8: Moisture content. The purpose is to specify the method for determining the moisture content of cigarettes and filter rods.

--- Part 9: Cigarette empty ends. The purpose is to specify the method for determining cigarette empty ends.

--- Part 10: Crumbling. The purpose is to specify the method for determining the crazing of cigarettes and filter rods.

--- Part 11: Cigarette extinction. The purpose is to specify the method for determining cigarette extinction.

--- Part 12: Cigarette appearance. The purpose is to specify the method for determining the appearance of cigarettes.

--- Part 13: Filter rod roundness. The purpose is to specify the method for determining the roundness of filter rods.

--- Part 14: Filter rod appearance. The purpose is to specify the method for determining the appearance of filter rods.

--- Part 15: Definitions and measurement principles for the determination of cigarette ventilation. The purpose is to specify the determination method of cigarette ventilation.

--- Part 17: Vibration method for the determination of tobacco falling from cigarette ends. The purpose is to specify the vibration method for the determination of tobacco falling from cigarette ends.

Determination method.

The above documents clarify the scope of application, terms and definitions, test equipment and procedures, and have been repeatedly tested and verified by multiple laboratories.

The verification provides precision data, enhances the consistency and comparability of test results, and provides a scientific and rigorous standard for the detection of physical indicators of cigarettes.

Standardized basis.

This document is modified to adopt ISO 6565:2015, which is the second revision of GB/T 22838.5.

The applicability of new cigarette products has been improved, the metrological technical requirements of testing equipment have been refined, and the consistency between my country's standards and ISO standards has been improved.