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

GB/T 26203-2023

Replacing GB/T 26203-2010

**Paper and board - Determination of internal bond strength
(Scott type)**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document replaces GB/T 26203-2010 "Determination of internal bonding strength of paper and paperboard (Scott type)" and is consistent with GB/T 26203-

Compared with.2010, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added terms and definitions (see Chapter 3);
- b) Method 2 is added as a test method, and the original test method is named Method 1 (see Chapter 6).

This document has been modified to adopt ISO 16260.2016 "Determination of internal bond strength of paper and paperboard".

Compared with ISO 16260.2016, this document has many structural adjustments. A list of structure number comparisons between the two files is attached.

Record A.

The technical differences between this document and ISO 16260.2016 and their reasons are as follows.

- a) ISO 186 (see Chapter 5) was replaced with normatively cited GB/T 450 to adapt to my country's technical conditions;
- b) Added the normative reference document GB/T 6892-2015 and deleted the normative reference document EN755-2.2013

(See 6.2.2.2) to improve the operability of this document;

- c) Replaced ISO 187 (see Chapter 5) with the normatively quoted GB/T 10739 to adapt to my country's technical conditions;
- d) Method 1 is added, and the method is supplemented according to the domestic instrument usage to conform to my country's national conditions (see 6.1);
- e) The size of the sample in Method 2 has been changed to (25.4 ± 0.1) mm, unifying the size of the sample in the two test methods for ease of operation (see 6.2);
- f) The aluminum block/metal flat anvil has been changed, depending on the application situation of domestic manufacturers and in line with my country's national conditions (see 6.2.2.2).

The following editorial changes have been made to this document.

- a) Change the name of the standard to "Determination of Internal Bonding Strength of Paper and Paperboard (Scott Type)";
- b) Increased precision (see Appendix B);
- c) Added instrument compliance verification (see Appendix C).

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document describes two methods for the determination of bond strength within paper and paperboard.

This document applies to single-layer and multi-layer paper and board, including coated paper and paper and board covered with polymer films.

This document does not apply to handsheets and low-weight, porous, soft or low-density papers and board.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 450 Collection of paper and cardboard samples and determination of longitudinal,

transverse, front and back sides of the sample (GB/T 450-2008, ISO 186.

2002,MOD)

GB/T 6892-2015 Aluminum and aluminum alloy extruded profiles for general industrial use

GB/T 10739 Standard atmospheric conditions for handling and testing of paper, paperboard and pulp samples (GB/T 10739-2002, eqv

ISO 187.1990)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

internal bond strength

The average potential energy required to delaminate the specimen under test conditions.

Note. The result is the difference between the potential energy of the sample before delamination and the residual energy after delamination, the unit is Joules per square meter (J/m²).

3.2

test assembly

The sample is laminated between two pieces of double-sided tape. The bottom side of the lower tape is adhered to a rigid metal flat anvil. The upper side of the upper tape is adhered to an "L"-shaped aluminum

on the block.

4 Principles

The combination of double-sided tape-sample-double-sided tape forms a sandwich structure, which is pressed between a metal flat anvil and an aluminum block. The structure

As shown in Figure 1. Hit the inner surface of the upper part of the aluminum block with a pendulum to flip the aluminum block over and destroy the sample in the Z direction (see Figure 2). by measuring the swing

The highest position is used to calculate the energy absorbed during the destruction of the sample. Factors that affect the measurement results include. the potential energy of the pendulum in the locked state;

The highest position of motion; the energy required for the pendulum to knock down an aluminum block without a sample; friction loss; internal vibration loss of the pendulum; the

adhesion of the double-sided tape

Attachment.

See Appendix B for the precision data of Method 2, and see Appendix C for instrument compliance verification.

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