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

GB/T 47166-2026

**Determination of stickies in recycled pulps and waste paper -
Near-infrared method**

再生纸浆和废纸中胶粘物的测定 近红外法

(English Translation)

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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 is modified to adopt ISO 15360-3:2024 "Evaluation of recycled pulp adhesives and plastics - Part 3: Application of near-infrared spectroscopy".

Measurement and identification.

This document has undergone the following structural adjustments compared to ISO 15360-3:2024.

---Added numbering to sections 6.2, 6.3, and 8.1;

---Chapter 9 of ISO 15360-3:2024 has been removed;

---Appendix A corresponds to Appendix B in ISO 15360-3:2024;

---Appendix B corresponds to Appendix A in ISO 15360-3:2024.

The technical differences between this document and ISO 15360-3:2024, and the reasons therefor, are as follows.

- a) The scope has been changed (see Chapter 1) to comply with my country's rules for drafting standardization documents;
- b) The definition of "non-sticky polymeric contaminants" has been revised (see 3.2) to suit my country's technological requirements;
- c) The principle was modified (see Chapter 4) to adapt to my country's technological conditions;
- d) ISO 216 (see 5.1, 5.3) has been replaced with the normatively referenced GB/T 148 to adapt to my country's technical conditions;
- e) The material "filter paper" and its requirements (see 5.5) have been added to adapt to

my country's technical conditions;

f) A description of the sample preparation method has been added (see 6.1) to improve the operability of the standard;

g) ISO 4119 (see 6.2.1.1 and 6.2.2.1) has been replaced with the normatively referenced GB/T 5399 to adapt to my country's technical conditions;

h) The normatively referenced GB/T 21557 replaces ISO 15360-1 and ISO 15360-2 (see 6.2.1.2) to adapt to my country's technical standards.

condition;

i) ISO 5269-1 and ISO 5269-2 have been replaced by the normatively referenced GB/T 24324 and GB/T 24326, respectively.

(See 6.2.2.2), to adapt to my country's technological conditions;

j) ISO 534 (see 6.2.2.3) has been replaced by the normatively referenced GB/T 451.3 to adapt to my country's technical conditions;

k) ISO 5270 (see 6.2.2.5) has been replaced with the normatively referenced GB/T 24323 to adapt to my country's technical conditions;

l) ISO 5263-2 (see 6.3.1 and 6.3.2) has been replaced with the normatively referenced GB/T 29285 to adapt to my country's technical conditions;

m) A provision has been added regarding the preparation of waste paper samples using the screening deposition method (see 6.3.1) to improve the operability of the standard;

(n) Additional provisions for waste paper sampling have been added (see 6.3.1 and 6.3.2) to improve the operability of the standard;

o) The normatively referenced GB/T 451.2 has replaced ISO 536 (see 6.3.3) to adapt to my country's technical conditions;

p) The type of specimen was changed (see 7.2) to be consistent with the specimen preparation method;

q) The interpretations of the meanings of mpulp and mpaper in the formulas have been changed (see 8.2) to be consistent with the sample preparation method;

r) Formula (5) in ISO 15360-3:2024 was deleted to be consistent with the sample preparation method;

s) The description of precision in ISO 15360-3:2024 has been removed to adapt to my country's technical conditions.

The following editorial changes have been made to this document.

---To harmonize with existing standards, the standard name has been changed to

"Determination of Adhesives in Recycled Pulp and Waste Paper by Near-Infrared Method";

---The URLs for the ISO and IEC terminology databases have been removed;

---The source for the definition of adhesives has been removed;

---Note. The definition of non-sticky polymeric contaminants has been changed;

---Added instructions on preparing samples of unbleached recycled pulp and recycled pulp containing mechanical pulp using the screening deposition method;

---Added description of the deposition range of adhesives and plastics on filter paper;

---Added instructions on preparing samples using the screening deposition method for unbleached waste paper and waste paper containing mechanical pulp;

---Added description of waste paper categories suitable for direct cutting and sample preparation.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Paper Industry (SAC/TC141).

1 Scope

This document describes a method for determining adhesives in recycled pulp and waste paper using near-infrared spectroscopy.

This document applies to the determination of adhesives in recycled pulp and waste paper, and also to the determination of non-adhesive polymeric contaminants (plastics).

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

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

This document.

GB/T 148 Dimensions of printing, writing and drawing paper (GB/T 148-1997, neq ISO 216:1975) GB/T 451.2 Paper and paperboard - Part 2: Determination of basis weight (GB/T 451.2-2023, ISO 536:2019, MOD) GB/T 451.3 Determination of thickness of paper and paperboard (GB/T 451.3-2002, idt ISO 534:1988) GB/T 5399 Determination of pulp concentration (GB/T 5399-2004, ISO 4119:1995, IDT) GB/T 21557 Determination of

adhesives in waste paper (GB/T 21557-2008, ISO 15360-1:2000, ISO 15360-2:2001, MOD)

GB/T 24323 Pulp - Laboratory determination of physical properties of paper sheets (GB/T 24323-2009, ISO 5270:1998, MOD) GB/T 24324 Preparation of laboratory paper for physical testing of pulp - Conventional sheet forming method (GB/T 24324-2009) ISO 5269-1:2005, MOD) GB/T 24326 Preparation of laboratory paper for physical testing of pulp - Rapid Kaiser method (GB/T 24326-2009) ISO 5269-2:2004, MOD) GB/T 29285 Laboratory wet dissociation of pulp - Mechanical pulp dissociation (GB/T 29285-2012, ISO 5263-2:2004) ISO 5263-3:2004, MOD)

3 Terms and Definitions

The following terms and definitions apply to this document.

adhesives

In recycled pulp and waste paper, it can adhere to objects it comes into contact with at room temperature, or react with increased temperature, pressure, or pH.

A type of substance that exhibits viscosity.

A class of polymeric compounds that do not have stickiness at room temperature in recycled pulp and waste paper.

Note: The non-sticky polymeric contaminants referred to in this document are mainly plastics and do not include cellulose or inorganic substances.