ICS 85.040
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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 42945-2023

Pulps - Determination of mass fraction of fines

Issued on: August 6, 2023 **Implemented on: March 1, 2024**

Issued by: State Administration for Market Regulation, China National Standardization Administration

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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 10376.2011 "Determination of mass fraction of fine fibers in pulp".

Compared with ISO 10376.2011, this document has made the following structural adjustments.

a) Chapter 5 corresponds to Chapter 5 and Chapter 6 in ISO 10376.2011, of which 5.1~5.6 corresponds to ISO 10376.2011

Chapter 5, 5.7 corresponds to Chapter 6 in ISO 10376.2011;

b) Chapter 6, Chapter 7, Chapter 8 and Chapter 9 respectively correspond to Chapter 7, Chapter 8, Chapter 9 and Chapter 9 in ISO 10376.2011

Chapter 10;

c) Appendix A corresponds to Appendix B in ISO 10376.2011.

The technical differences between this document and ISO 10376.2011 and their reasons are as follows.

a) ISO 7213 (see Chapter 6) was replaced with normatively cited GB/T 740 to adapt to my country's technical conditions;

b) ISO 4119 (see 7.1) was replaced with normatively cited GB/T 5399 to adapt to my country's technical conditions;

c) Replaced ISO 5263-1 (see 5.1 and 7.1) with the normatively quoted GB/T 24327 to adapt to my country's technical conditions;

d) Replaced ISO 5263-2 and ISO 5263-3 (see 5.1 and 7.1) with the normatively cited GB/T 29285 to adapt to our country's technology

technical conditions;

e) Added references to GB/T 1914-2017 (see 5.5) to adapt to my country's technical conditions;

f) The performance requirements for qualitative filter paper have been changed (see 5.5) to be consistent with the performance requirements for qualitative filter paper in current national standards;

g) The sampling volume and total water consumption of different types of pulp have been changed (see 7.2), in line with the current situation of various types of pulp in my country;

h) The operating steps of the screening process have been changed (see 7.2) to increase operability.

The following editorial changes have been made to this document.

a) Note 1 of Chapter 4, Note 1 and Note 2 of 8.2 in ISO 10376.2011 are deleted;

b) Informative Appendix A in ISO 10376.2011 has been deleted.

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 the determination of the fine fiber quality of pulp by means of a perforated metal plate or single-layer fiber classification screen (dynamic filter or similar device)

Fractional method.

This document applies to all types of pulp and also to paper that can be completely dissociated into fibers.

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 740 Collection of pulp samples (GB/T 740-2003, ISO 7213.1981, IDT)

GB/T 1914-2017 Chemical analysis filter paper

GB/T 5399 Determination of pulp concentration (GB/T 5399-2004, ISO 4119.1995, IDT)

GB/T 24327 Pulp laboratory wet dissociation chemical pulp dissociation (GB/T 24327-2009, ISO 5263-1.2004, MOD)

GB/T 29285 Pulp laboratory wet dissociation 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.

3.1

fine fibers

The portion of the pulp that passes through a metal screen with a nominal mesh size of 76 μm or a perforated metal plate with a mesh size of 76 μm.

Note 1.There is no significant difference in the results obtained using screen mesh and perforated metal plates on fiber grading screens, see Appendix A.

Note 2.If the sample contains inorganic mineral fillers, the filler particles are usually also included in the fine fiber component.

4 Principles

Sieve a certain amount of completely dissociated pulp suspension through a perforated metal plate or metal screen with round or square holes. Sieve

The components retained on the web and the filtered components were dried and weighed respectively. Calculate and report fine fibers as a percentage of the absolute dry mass of the sample being tested

Dimension quality score.

Note 1.The turbulence and pressure generated by the three-blade propeller of the mixer will produce a screening effect.

Note 2.If the inorganic matter and ash content in the pulp are known, the inorganic matter (filler and pigment) content in the fine fiber component can be calculated from the ash content of the component.

inferred.