INTERNATIONAL STANDARD

ISO 5263-3

Second edition
2023-02

Pulps — Laboratory wet disintegration —

Part 3: Disintegration of mechanical pulps at ≥85°C

Pâtes — Désintégration humide en laboratoire —

Partie 3: Désintégration des pâtes mécaniques à une température supérieure ou égale à 85 °C

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Contents

Page

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 5263-3:2004), which has been technically revised.

The main changes are as follows:

— the requirement to reduce the temperature of the suspension immediately following disintegration has been made explicit.

A list of all parts in the ISO 5263 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Pulps — Laboratory wet disintegration —

Part 3:
Disintegration of mechanical pulps at ≥85°C

1 Scope

This document specifies an apparatus and the procedures for the laboratory wet disintegration of mechanical pulps that exhibit latency except when brightness is measured. This apparatus and procedure can be used for preparation of the test portion in other International Standards dealing with pulps.

This document is applicable to all kind of mechanical pulps (i.e. mechanical, semi-chemical and chemi-mechanical pulps) exhibiting latency.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 638-1, *Paper, board, pulps and cellulosic nanomaterials — Determination of dry matter content by oven-drying method — Part 1: Materials in solid form*

ISO 4119, *Pulps — Determination of stock concentration*

ISO 14487, *Pulps — Standard water for physical testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
disintegration of mechanical pulp
mechanical treatment in water so that interlaced fibres, which were free in the pulp stock, are again separated from one another without appreciably changing their structural properties

3.2
latency
condition of a mechanical pulp in which some of its properties are inhibited and require disintegration of the pulp at elevated temperature to be developed

Note 1 to entry: Latency is due to the distorted form of the fibres acquired in mechanical processing, especially at high consistency, and subsequently preserved upon cooling at high consistency. It is assumed that its preservation is caused by the hardening of the lignin.

Note 2 to entry: The degree of latency in a pulp is generally related to the consistency and energy applied during the mechanical processing.