

Pulps — Laboratory wet disintegration

Part 3: Disintegration of mechanical pulps at > 85 °C (ISO 5263-3:2004)

ICS 85.040

Confirmed July 2009

National foreword

This British Standard was published by BSI. It is the UK implementation of EN ISO 5263-3:2004. Together with BS EN ISO 5263-1:2004 and BS EN ISO 5263-2:2004 it supersedes BS EN ISO 5263:1997 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PAI/11, Methods of test for paper, board and pulps.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2009.

© BSI 2009

ISBN 978 0 580 53926 8

Amendments/corrigenda issued since publication

Date	Comments

English version

Pulps - Laboratory wet disintegration - Part 3: Disintegration of mechanical pulps at > 85 degrees C (ISO 5263-3:2004)

Pâtes - Désintégration humide en laboratoire - Partie 3:
Désintégration des pâtes mécaniques à > 85 degrés C
(ISO 5263-3:2004)

This European Standard was approved by CEN on 2 August 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Definition	1
4 Apparatus	2
5 Preparation of test portion	2
6 Procedure	3
7 Test report	4
Annex A (normative) Construction of the Standard disintegrator	5
Annex B (normative) Checking the Standard disintegrator	7
Annex C (normative) Circulation disintegrator	8
Annex D (informative) The effect of latency in mechanical pulps	9
Bibliography	11

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 5263-3 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 5, *Test methods and quality specifications for pulps*.

This first edition cancels and partially replaces ISO 5263:1995 which has been technically revised. In the revision, ISO 5263 has been divided into three parts; Part 1 which is applicable to chemical pulps, Part 2 which is applicable to mechanical pulps without latency and Part 3 which is applicable to mechanical pulps exhibiting latency. In Part 3, an informative Annex has been inserted describing the effect of latency in mechanical pulps.

ISO 5263 consists of the following parts, under the general title *Pulps – Laboratory wet disintegration*:

- *Part 1: Disintegration of chemical pulps*
- Part 2: Disintegration of mechanical pulps at 20 °C*
- *Part 3: Disintegration of mechanical pulps at ≥ 85 °C*

Pulps – Laboratory wet disintegration –

Part 3: Disintegration of mechanical pulps at $\geq 85\text{ }^{\circ}\text{C}$

1 Scope

This part of ISO 5263 specifies an apparatus and the procedures for the laboratory wet disintegration of mechanical pulps that exhibit latency. This apparatus and procedure are required for preparation of the test portion in a number of other International Standards dealing with pulps.

ISO 5263-3 is applicable to all kind of mechanical pulps (i.e. mechanical, semi-chemical and chemi-mechanical pulps) exhibiting latency. Mechanical pulps not exhibiting latency shall be disintegrated according to ISO 5263-2.

The procedure specified in ISO 5263-2 should be used to disintegrate all mechanical pulps to be measured for brightness.

NOTE Brightness is not significantly altered by the presence of latency; however, hot disintegration of mechanical pulps can lead to significant loss of brightness.

2 Normative references

The following referenced documents are indispensable for the application 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, *Pulps – Determination of dry matter content*

ISO 4119, *Pulps – Determination of stock concentration*

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

3 Definition

For the purposes of this part of ISO 5263, the following definitions apply.

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