
**Pulps — Determination of fibre length
by automated optical analysis —**

**Part 1:
Polarized light method**

*Pâtes — Détermination de la longueur de fibre par analyse optique
automatisée —*

Partie 1: Méthode de la lumière polarisée





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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 6, *Paper, board and pulps*.

This second edition cancels and replaces the first edition (ISO 16065-1:2001), of which it constitutes a minor revision with the following changes:

- a new precision statement that complies with the requirements of ISO/TR 24498 has been added.

ISO 16065 consists of the following parts, under the general title *Pulps — Determination of fibre length by automated optical analysis*:

- *Part 1: Polarized light method*
- *Part 2: Unpolarized light method*

Pulps — Determination of fibre length by automated optical analysis —

Part 1: Polarized light method

1 Scope

This part of ISO 16065 specifies a method for determining fibre length using polarized light.

This part of ISO 16065 is applicable to all kinds of pulp. However, fibrous particles shorter than 0,2 mm are not regarded as fibres for the purposes of this part of ISO 16065 and, therefore, are not to be included in the results.

NOTE ISO 16065-2 deals with the determination of fibre length using unpolarized light.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 638, *Paper, board and pulps — Determination of dry matter content — Oven-drying method*

ISO 4119, *Pulps — Determination of stock concentration*

ISO 5263-1, *Pulps — Laboratory wet disintegration — Part 1: Disintegration of chemical pulps*

ISO 5263-2, *Pulps — Laboratory wet disintegration — Part 2: Disintegration of mechanical pulps at 20 degrees C*

ISO 5263-3, *Pulps — Laboratory wet disintegration — Part 3: Disintegration of mechanical pulps at > 85 degrees C*

ISO 7213, *Pulps — Sampling for testing*

ISO/TR 24498, *Paper, board and pulps — Estimation of uncertainty for test methods*

3 Terms and definitions

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

3.1

unpolarized light

light composed of light waves whose planes of vibration are randomly oriented

3.2

polarizer

material which only transmits a component of a light wave which is vibrating in a particular direction, which is the direction of polarization of the material

3.3

plane polarized light

light composed of light waves which all vibrate in the same plane