
**Pulps — Preparation of laboratory sheets
for physical testing —**

**Part 1:
Conventional sheet-former method**

*Pâtes — Préparation des feuilles de laboratoire pour essais physiques —
Partie 1: Méthode de la formette conventionnelle*



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.

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.

International Standard ISO 5269-1 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 5, *Test methods and quality specifications for pulp*.

This second edition cancels and replaces the first edition (ISO 5269-1:1979), of which it constitutes a technical revision.

ISO 5269 consists of the following parts, under the general title *Pulps — Preparation of laboratory sheets for physical testing*:

- *Part 1: Conventional sheet-former method*
- *Part 2: Rapid-Köthen method*

Annex A of this part of ISO 5269 is for information only.

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Introduction

It has been agreed that the ultimate aim of standardization of the preparation of laboratory sheets should be to develop one method which is internationally acceptable and which, if possible, permits the use of different types of sheet-making apparatus.

For practical reasons, it has not proved possible to achieve this at present. Therefore, as an interim measure, in view of the widespread use of equipment described in this part of ISO 5269, it has been decided to provide agreed guidance on the use of different types of equipment in order to achieve consistency of results with each method.

To avoid creating too many levels of results, the method specified in this part of ISO 5269 should preferably be used with the Valley beater or PFI mill methods of laboratory beating according to ISO 5264-1 and ISO 5264-2, respectively. The method specified in ISO 5269-2^[3] (Rapid-Köthen method) should preferably be used with the PFI mill or Jokro mill methods of laboratory beating according to ISO 5264-2 and 5264-3^[2], respectively.

Pulps — Preparation of laboratory sheets for physical testing —

Part 1: Conventional sheet-former method

1 Scope

This part of ISO 5269 specifies a method, using a conventional sheet former, for the preparation of laboratory sheets of pulp for the purpose of carrying out subsequent physical tests on these sheets in order to assess the relevant properties of the pulp itself.

This part of ISO 5269 is applicable to most kinds of pulp. It is not suitable for some pulps with very long fibres, such as those made from unshortened cotton, flax and similar materials.

This method is not suitable for the preparation of laboratory sheets for the determination of diffuse blue reflectance factor (ISO brightness) in accordance with ISO 3688^[1].

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5269. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 5269 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 187:1990, *Paper, board and pulps — Standard atmosphere for conditioning and testing and procedure for monitoring the atmosphere and conditioning of samples.*

ISO 3310-1:1990, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth.*

ISO 5263:1995, *Pulps — Laboratory wet disintegration.*

ISO 5264-1:1979, *Pulps — Laboratory beating — Part 1: Valley beater method.*

ISO 5264-2:1979, *Pulps — Laboratory beating — Part 2: PFI mill method.*

ISO 5635:1978, *Paper — Measurement of dimensional change after immersion in water.*

ISO 8787:1986, *Paper and board — Determination of capillary rise — Klemm method.*

3 Principle

A circular, square or rectangular sheet is formed from a pulp suspension on a wire screen under suction. The sheet is subjected twice to a pressure of 410 kPa. The sheet is dried in conditioned air and in contact with a drying plate, to which it adheres so that it does not shrink.