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

**Part 2:
Rapid-Köthen method**

*Pâtes — Préparation des feuilles de laboratoire pour essais
physiques —*

Partie 2: Méthode Rapid-Köthen



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Principle	1
4 Equipment	2
5 Pretreatment and preparation of sample	5
5.1 Pretreatment	5
5.2 Preparation of sample	6
6 Procedure	6
6.1 Sheet forming	6
6.2 Transfer of the sheet	6
6.3 Drying and conditioning	7
7 Test report	7
Bibliography	8

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 5269-2 was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 5, *Test methods and quality specifications for pulps*.

This third edition cancels and replaces the second edition (ISO 5269-2:1998), of which the Introduction, Clauses 1, 2 and 7 and Subclause 5.1 have been revised.

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*

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 PFI mill method of laboratory beating according to ISO 5264-2. The method specified in ISO 5269-1 (Conventional sheet-former method) should preferably be used with the Valley beater or PFI mill methods of laboratory beating according to ISO 5264-1^[2] and 5264-2, respectively.

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Pulps — Preparation of laboratory sheets for physical testing —

Part 2: Rapid-Köthen method

1 Scope

This part of ISO 5269 specifies a method, using a Rapid-Köthen 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].

WARNING — When long-fibred pulp is used in the unshortened form, the sheet formation may not always be satisfactory.

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

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 °C*

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

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

ISO 5269-1, *Pulps — Preparation of laboratory sheets for physical testing — Part 1: Conventional sheet-former method*

3 Principle

A circular sheet is formed from a pulp suspension on a wire screen under suction. The sheet is subjected to pressure and dried in a dryer, with almost complete prevention of shrinkage, in a specified way with respect to the pressure applied, the suction and the temperature.