
**Pulps — Determination of drainability —
Part 1:
Schopper-Riegler method**

*Pâtes — Détermination de l'égouttabilité —
Partie 1: Méthode Schopper-Riegler*



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 5267-1 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 5267-1: 1979), of which it constitutes a minor revision. The main amendment is the addition of ISO 14487 to clause 6 (formerly clause 7) to specify the water used in the test.

ISO 5267 consists of the following parts, under the general title *Pulps — Determination of drainability*:

— *Part 1: Schopper-Riegler method*

— *Part 2: "Canadian Standard" freeness method*

Annexes A and B form an integral part of this part of ISO 5267.

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Pulps — Determination of drainability — Part 1: Schopper-Riegler method

1 Scope

This part of ISO 5267 specifies a method for the determination of the drainability of a pulp suspension in water in terms of the Schopper-Riegler (SR) number.

The Schopper-Riegler test is designed to provide a measure of the rate at which a dilute suspension of pulp may be dewatered. It has been shown that the drainability is related to the surface conditions and swelling of the fibres, and constitutes a useful index of the amount of mechanical treatment to which the pulp has been subjected.

In principle, this method is applicable to all kinds of pulp in aqueous suspension. However, in practice, the Schopper-Riegler test provides acceptable results only if a sufficiently dense mat of fibres is formed on the wire screen. For this reason, the test is not recommended for some extremely short-fibred pulps, such as those from well-beaten hardwoods, as most of the fibres will pass through the wire screen, resulting in anomalous reduction of the SR number. The most reliable results are obtained within the range of 10 to 90 SR number.

The results of this test do not necessarily correlate with the drainage behaviour of a pulp material on a commercial paper machine.

NOTE A method for the determination of drainability in terms of the "Canadian Standard" freeness number is specified in ISO 5267-2:1980, *Pulps — Determination of drainability — Part 2 "Canadian Standard" freeness method*.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 5267. 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 5267 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 4119:1995, *Pulps — Determination of stock concentration*.

ISO 14487:1997, *Pulps — Standard water for physical testing*.

3 Definition

For the purposes of this part of ISO 5267, the following definition applies.

3.1

Schopper-Riegler number scale

scale on which a discharge of 1 000 ml corresponds to a SR number of zero and zero discharge to a SR number of 100

3.2

stock

aqueous suspension of disintegrated pulp