

Paper and board - Determination of water
absorptiveness - Cobb method (ISO 535:2023)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 535:2023 sisaldab Euroopa standardi EN ISO 535:2023 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 535:2023 consists of the English text of the European standard EN ISO 535:2023.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
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English Version

Paper and board - Determination of water absorptiveness - Cobb method (ISO 535:2023)

Papier et carton - Détermination de la capacité
d'absorption d'eau - Méthode de Cobb (ISO 535:2023)

Papier und Pappe - Bestimmung des
Wasserabsorptionsvermögens - Cobb-Verfahren (ISO
535:2023)

This European Standard was approved by CEN on 13 February 2023.

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

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European foreword

This document (EN ISO 535:2023) has been prepared by Technical Committee ISO/TC 6 "Paper, board and pulps" in collaboration with Technical Committee CEN/TC 172 "Pulp, paper and board" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 535:2014.

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 535:2023 has been approved by CEN as EN ISO 535:2023 without any modification.

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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).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 6, *Paper, board and pulps*, Subcommittee SC 2, *Test methods and quality specifications for paper and board*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 172, *Pulp, paper and board*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 535:2014), which has been technically revised.

The main changes are as follows:

- requirements in [5.1](#) and [5.2](#) added;
- [Clause 6](#) and [6.2](#) revised;
- preparation of test pieces added in [Clause 9](#);
- [Subclauses 10.3](#) and [10.4](#) revised and requirements added;
- several additional explanations added in [10.5](#).

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Paper and board — Determination of water absorptiveness — Cobb method

1 Scope

This document specifies a method for determining the water absorptiveness of paper and board, including corrugated fibreboard, under standard conditions.

This document is not applicable for paper of grammage less than 50 g/m² or embossed paper. It is not applicable for porous papers such as newsprint or papers such as blotting paper or other papers having a relatively high-water absorptiveness for which ISO 8787 is more suitable.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 186, *Paper and board — Sampling to determine average quality*

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

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

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

water absorptiveness

Cobb value

calculated mass of water absorbed in a specified time by 1 m² of paper or board under specified conditions

Note 1 to entry: The test area is normally 100 cm².

4 Principle

A test piece is weighed immediately before and after exposure for a specified time of one surface to water, followed by blotting. The result of the increase in mass is expressed in grams per square metre (g/m²).

The test piece shall not show any sign of penetration through or leakage outside the test ring (see 10.5).