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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 Papp - Bestimmung des  
Wasserabsorptionsvermögens - Cobb-Verfahren (ISO  
535:2023)

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

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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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of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.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.

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## Endorsement notice

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



INTERNATIONAL  
STANDARD

ISO  
535

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**Paper and board — Determination of  
water absorptiveness — Cobb method**

*Papier et carton — Détermination de la capacité d'absorption d'eau  
— Méthode de Cobb*

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CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
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## ISO 535:2023(E)

## 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](http://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](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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](http://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](#).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# 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/m<sup>2</sup> 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 m<sup>2</sup> of paper or board under specified conditions

Note 1 to entry: The test area is normally 100 cm<sup>2</sup>.

## 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/m<sup>2</sup>).

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