

Paper and board - Determination of grammage (ISO 536:2019)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 536:2020 sisaldab Euroopa standardi EN ISO 536:2020 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 536:2020 consists of the English text of the European standard EN ISO 536:2020.
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English Version

## Paper and board - Determination of grammage (ISO 536:2019)

Papier et carton - Détermination du grammage (ISO 536:2019)

Papier und Pappe - Bestimmung der flächenbezogenen Masse (ISO 536:2019)

This European Standard was approved by CEN on 30 November 2019.

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## European foreword

This document (EN ISO 536:2020) 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of an identical text or by endorsement, at the latest by August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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 536:2012.

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## Endorsement notice

The text of ISO 536:2019 has been approved by CEN as EN ISO 536:2020 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](http://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](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*.

This fourth edition cancels and replaces the third edition (ISO 536:2012), which has been technically revised. The main changes compared to the previous edition are as follows:

- several inconsistencies and imprecisions have been addressed e.g. [5.1](#) permits the nominal area of test pieces cut by the cutter to be used in calculating grammage rather than for the area of each test piece to be determined, in certain circumstances, but this was not recognised in subsequent clauses;
- sharper wording in [Clause 8](#) when a reduced test area is used;
- additional information required in [Clause 10](#);
- a more accurate description of the determinate of “as-taken” grammage near top of a reel in [A.2](#).

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 grammage

## 1 Scope

This document specifies a method for determining the grammage of paper and board.

## 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 287, *Paper and board — Determination of moisture content of a lot — Oven-drying method*

## 3 Terms and definitions

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

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

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

### 3.1

#### **grammage**

#### **mass per unit area**

mass of a unit area of paper or board determined by a specific method of test

Note 1 to entry: Grammage is expressed in grams per square metre.

## 4 Principle

The area of the test pieces and their masses are determined and the grammage is calculated.

For details regarding the test method precision, see [Annex B](#).

## 5 Apparatus

**5.1 Cutting device**, capable of repeatedly cleanly cutting test pieces to within  $\pm 1,0$  % of the same nominal area, for most paper and board products. This shall be checked frequently by measurement. Provided that the above accuracy is attained, the nominal area shall be used for calculating grammage.

With certain types of paper and board it will be found, after carrying out this determination of area, that test pieces cannot be cut to within  $\pm 1,0$  % of the nominal area. In such instances the dimensions of each test piece shall be determined to the nearest 0,5 mm and its area calculated.