INTERNATIONAL STANDARD

ISO 12625-9

Second edition
2015-02-15

Tissue paper and tissue products —

Part 9: Determination of ball burst strength

Papier tissue et produits tissue —

Partie 9: Détermination de la résistance à l'éclatement, méthode à la balle

Reference number
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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).

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).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

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

This second edition cancels and replaces the first edition, ISO 12625-9:2005, which has been technically revised.

The following changes have been made:

— Clause 4 was reformulated;

— internal diameter of the two concentric rings was reduced to 50 mm;

— description of the procedure in Clause 9 was simplified;

— precision data in Annex A was added;

— editorial updating.

ISO 12625 consists of the following parts, under the general title *Tissue paper and tissue product*:

— *Part 1: General guidance on terms;*

— *Part 3: Determination of thickness, bulking thickness apparent bulk density and bulk;*

— *Part 4: Determination of tensile strength, stretch at maximum force and tensile energy absorption;*

— *Part 5: Determination of wet tensile strength;*

— *Part 6: Determination of grammage;*

— *Part 7: Determination of optical properties — Measurement of brightness and colour with D65/10° (outdoor daylight);*

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— *Part 8: Water-absorption time and water-absorption capacity, basket-immersion test method;*

— *Part 9: Determination of ball burst strength;*

— *Part 11: Determination of wet ball burst strength;*

— *Part 12: Determination of tensile strength of perforated lines — Calculation of perforation efficiency;*

— *Part 15: Determination of optical properties — Measurement of brightness and colour with C/2° (indoor daylight);*

— *Part 16: Determination of optical properties — Opacity (paper backing) — Diffuse reflectance method*

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Introduction

This part of ISO 12625 is applicable to tissue papers and tissue products. In principle, application to other paper types is possible, but not covered by this part of ISO 12625.

It is expressly stated that the detection of impurities and contraries in tissue and tissue products be applied according to ISO 15755.

For the determination of moisture content in tissue paper and tissue products, ISO 287 and ISO 638 are applied.

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Tissue paper and tissue products —

Part 9:
Determination of ball burst strength

1 Scope

This part of ISO 12625 specifies a test method for the determination of the resistance to mechanical penetration (ball burst strength procedure) of tissue paper and tissue products.

Currently, two types of clamping devices are available on the market with two different diameters, one is with 50 mm and one is with 89 mm (see Annex B). This part of ISO 12625 applies for a 50 mm clamping device to be able to measure all sample sizes of tissue paper and tissue products and to be consistent with ISO 12625-11.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

ISO 12625-1, *Tissue paper and tissue products — Part 1: General guidance on terms*

ISO 12625-6, *Tissue paper and tissue products — Part 6: Determination of grammage*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12625-1 and the following apply.

3.1
grammage
g
mass of a unit area of tissue paper or tissue product as determined by the procedure specified in ISO 12625-6

Note 1 to entry: The grammage is expressed in gram per square metre (g/m^2).

3.2
bursting force
F
maximum force that a test piece of tissue paper or tissue product can withstand under the test conditions, applied at right angle to its surface

Note 1 to entry: The bursting force is expressed in newton (N).

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