BS EN ISO 2758:2014



BSI Standards Publication

Paper — Determination of bursting strength



...making excellence a habit."

This British Standard is the UK implementation of EN ISO 2758:2014. It supersedes BS EN ISO 2758:2003 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PAI/11, Methods of test for paper, board and pulps.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Foreword

This document (EN ISO 2758:2014) 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of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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

This document supersedes EN ISO 2758:2003.

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Endorsement notice

The text of ISO 2758:2014 has been approved by CEN as EN ISO 2758:2014 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. www.iso.org/directives

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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*.

This fourth edition cancels and replaces the third edition (ISO 2758:2001), of which it constitutes a minor revision. It has been revised to include precision data.

Introduction

This International Standard is applicable to papers with bursting strengths in the range 70 kPa to 1 400 kPa.

For materials with bursting strengths equal to or greater than 350 kPa (or 250 kPa for the components of combined materials), an alternative method, based on similar principles, is specified in ISO 2759[1] All components of solid and corrugated fibreboard, irrespective of bursting strength, should be tested according to ISO 2759.

In view of the overlap between the method for testing papers and boards and in the absence of any commercial agreement, materials below 600 kPa should be tested according to this International Standard.

NOTE Due to differences in the specification of the apparatus, tests made on the same material using the procedures of ISO 2759 and this International Standard will not necessarily give the same results.

Paper — Determination of bursting strength

1 Scope

This International Standard specifies a method for measuring the bursting strength of paper submitted to increasing hydraulic pressure. It is applicable to paper having bursting strengths within the range 70 kPa to 1 400 kPa. It is not intended to be used for the components (such as fluting medium or linerboard) of a combined board, for which the method given in ISO 2759^[1] is more suitable.

In the absence of any commercial agreement as to which method should be used for testing the material, materials with bursting strengths below 600 kPa should be tested according to this International Standard.

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 536, Paper and board — Determination of grammage

3 Terms and definitions

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

3.1

bursting strength

maximum pressure developed by the hydraulic system in forcing an elastic diaphragm through a circular area of the paper when the pressure is applied in the manner described in the method

Note 1 to entry: The indicated bursting pressure includes the pressure required to extend the diaphragm during the test.

3.2

burst index

bursting strength of paper, in kilopascals, divided by the grammage of the paper determined in accordance with ISO 536

4 Principle

A test piece, placed over a circular elastic diaphragm, is rigidly clamped at the periphery but free to bulge with the diaphragm. Hydraulic fluid is pumped at a constant rate, bulging the diaphragm until the test piece ruptures. The bursting strength of the test piece is the maximum value of the applied hydraulic pressure.

5 Apparatus

The apparatus shall contain, as a minimum, the features described in 5.1 to 5.4.