

**Paper - Determination of bursting strength (ISO  
2758:2014)**

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## EESTI STANDARDI EESSÕNA

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English Version

**Paper - Determination of bursting strength (ISO 2758:2014)**

Papier - Détermination de la résistance à l'éclatement (ISO 2758:2014)

Papier - Bestimmung des Berstdruckes (ISO 2758:2014)

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EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## 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of an identical text or by endorsement, at the latest by February 2015, and conflicting national standards shall be withdrawn at the latest by February 2015.

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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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## 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<sup>[1]</sup>. 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<sup>[1]</sup> 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](#).