Paber ja papp. Tõmbeomaduste määramine. Osa 2: Konstantse venitamiskiiruse meetod

Paper and board - Determination of tensile properties - Part 2: Constant rate of elongation method (20 mm/min)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 1924-2:2009 sisaldab Euroopa standardi EN ISO 1924-2:2008 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 1924-2:2009 consists of the English text of the European standard EN ISO 1924-2:2008.
Standard on kinnitatud Eesti Standardikeskuse 29.01.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 29.01.2009 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 15.12.2008.	Date of Availability of the European standard text 15.12.2008.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 85.060

Võtmesõnad: kartongid, määramine, paber, pikendamine, teimimine, tugevus, tõmbe-, tõmbeomadused, tõmbeteimid

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 1924-2

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Supersedes EN ISO 1924-2:1995

English Version

Paper and board - Determination of tensile properties - Part 2: Constant rate of elongation method (20 mm/min) (ISO 1924-2:2008)

Papier et carton - Détermination des propriétés de traction - Partie 2: Méthode à gradient d'allongement constant (20 mm/min) (ISO 1924-2:2008)

Papier und Pappe - Bestimmung von Eigenschaften bei Zugbeanspruchung - Teil 2: Verfahren mit konstanter Dehngeschwindigkeit (20 mm/min) (ISO 1924-2:2008)

This European Standard was approved by CEN on 19 November 2008.

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Ref. No. EN ISO 1924-2:2008: E

Foreword

This document (EN ISO 1924-2:2008) 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of an identical text or by endorsement, at the latest by June 2009, and conflicting national standards shall be withdrawn at the latest by June 2009.

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Endorsement notice

The text of ISO 1924-2:2008 has been approved by CEN as a EN ISO 1924-2:2008 without any modification.

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Introduction

The method for determination of tensile properties specified in this part of ISO 1924 is the one most commonly used. It is related to the method specified in ISO 1924-3. In this part of ISO 1924 (ISO 1924-2), the constant rate of elongation applied is 20 mm/min, whereas in ISO 1924-3, the constant rate of elongation applied is 100 mm/min.

Since the results of a tensile test depend on the rate of elongation applied, this part of ISO 1924 and ISO 1924-3 will not give the same results. The rate dependence can vary according to paper grade and is different for tensile strength, strain at break, tensile energy absorption and modulus of elasticity.

NOTE 1 In most cases, the tensile properties can increase by 5 % to 15 % when the rate of elongation is increased from 20 mm/min (180 mm test span length) to 100 mm/min (100 mm test span length).

NOTE 2 In this part of ISO 1924, the same terminology and symbols are used as in ISO 1924-3 and in general literature concerning materials physics and mechanics.

Paper and board — Determination of tensile properties —

Part 2:
Constant rate of elongation method (20 mm/min)

1 Scope

This part of ISO 1924 specifies a method for measuring the tensile strength, strain at break and tensile energy absorption of paper and board, using a testing machine operating at a constant rate of elongation (20 mm/min). This part of ISO 1924 also specifies equations for calculating the tensile index, the tensile energy absorption index and the modulus of elasticity.

Testing in conformance with this part of ISO 1924 always includes the measurement of tensile strength. Measurement or calculation of other properties is subject to agreement between the parties concerned.

This part of ISO 1924 is applicable to all papers and boards, including papers with a high strain at break if the results are within the capacity of the testing machine. It also applies to the components of corrugated board but not, however, to corrugated board itself.

This part of ISO 1924 is not applicable to tissue paper and tissue products for which ISO 12625-4[2] is applicable. For the determination of tensile properties of laboratory sheets, ISO 5270[3] is recommended.

2 Normative references

The following referenced documents are indispensable for the application 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 534, *Paper and board — Determination of thickness, density and specific volume*

ISO 536, *Paper and board — Determination of grammage*