Paper and board - Determination of moisture content of a lot - Oven-drying method

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 287:2009 sisaldab Euroopa standardi EN ISO 287:2009 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 287:2009 consists of the English text of the European standard EN ISO 287:2009.
Standard on kinnitatud Eesti Standardikeskuse 30.11.2009 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 30.11.2009 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 01.03.2009.	Date of Availability of the European standard text 01.03.2009.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

ICS 85.060

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 287

June 2009

ICS 85.060

Supersedes EN 20287:1994

English Version

Paper and board - Determination of moisture content of a lot - Oven-drying method (ISO 287:2009)

Papier et carton - Détermination de la teneur en humidité d'un lot - Méthode par séchage à l'étuve (ISO 287:2009)

Papier und Pappe - Bestimmung des Feuchtegehaltes eines Lieferpostens - Wärmeschrankverfahren (ISO 287:2009)

This European Standard was approved by CEN on 27 May 2009.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN ISO 287:2009: E

Foreword

This document (EN ISO 287:2009) 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 December 2009, and conflicting national standards shall be withdrawn at the latest by December 2009.

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 20287:1994.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 287:2009 has been approved by CEN as a EN ISO 287:2009 without any modification.

Contents

Page

Introduction

The determination of dry matter content and moisture content are carried out for different purposes.

ISO 638 [1] is used in cases where the dry matter content is needed to calculate the result of chemical analysis or physical testing and when the determination of the moisture content of a sample, rather than a lot, is required. As an example, the dry matter content of the sample is needed to express the content of elements, such as cadmium and manganese, in relation to the oven-dry mass of the sample.

This International Standard is used for the purpose of determining the average moisture content and the variation in moisture content (maximum and minimum values) of a lot. In the paper and board trade, the moisture content is important since it influences converting processes, such as printing and copying. The moisture content also has an influence on curl and dimensional stability.

Paper and board — Determination of moisture content of a lot — Oven-drying method

1 Scope

This International Standard specifies an oven-drying method for the determination of the moisture content of a lot of paper and board. The procedure in Clause 8, describing how the test pieces are drawn from the lot, is performed at the time of sampling.

This International Standard is applicable to every type of lot of paper and board, including corrugated board and solid board, provided that the paper or board does not contain any substances, other than water, that are volatile at the temperature specified in this International Standard.

For the determination of the dry matter content of a sample, ISO 638 [1] can be used.

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*

3 Terms and definitions

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

3.1
moisture content

w_{H_2O}

content of water in paper or board, i.e. the ratio of the loss of mass of a test piece, when dried according to the procedure described in this International Standard, to its mass at the time of sampling

NOTE The moisture content is normally expressed as a percentage mass fraction.

3.2
constant mass

mass reached by a test piece of paper or board after drying at a temperature of (105 ± 2) °C until the difference between two successive dryings and weighings, separated in time by at least half the initial drying period, does not exceed 0,1 % of the initial mass of the test piece at the time of sampling

4 Principle

At the time of sampling, weighing of test pieces taken from a lot and weighing the test pieces again after drying to constant mass. From the mass of a test piece before and after drying, the moisture content is calculated.