Paper and board - Determination of water absorptiveness - Cobb method (ISO 535:2014)



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## EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

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### **English Version**

## Paper and board - Determination of water absorptiveness - Cobb method (ISO 535:2014)

Papier et carton - Détermination de l'absorption d'eau - Méthode de Cobb (ISO 535:2014)

Papier und Pappe - Bestimmung des Wasserabsorptionsvermögens - Cobb-Verfahren (ISO 535:2014)

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## **Foreword**

This document (EN ISO 535:2014) 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of an identical text or by endorsement, at the latest by August 2014, and conflicting national standards shall be withdrawn at the latest by August 2014.

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#### **Endorsement notice**

The text of ISO 535:2014 has been approved by CEN as EN ISO 535:2014 without any modification.

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## Introduction

bed sorbed per and b. The test described in this International Standard permits the determination of the quantity of water that can be absorbed by the surface of paper or board in a given time. Water absorptiveness is a function of various paper and board characteristics such as sizing, porosity, etc.

# Paper and board — Determination of water absorptiveness — Cobb method

## 1 Scope

This International Standard specifies a method of determining the water absorptiveness of sized paper and board, including corrugated fibreboard, under standard conditions. It may not be suitable for paper of grammage less than  $50 \, \text{g/m}^2$  or embossed paper. It is not suitable for porous papers such as newsprint or unsized papers such as blotting paper or other papers having a relatively high water absorptiveness for which ISO 8787 is more suitable.

This method is not intended to be used for precise evaluation of the writing properties of paper although it does give a general indication of suitability for use with aqueous inks.

## 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 5269-1, Pulps — Preparation of laboratory sheets for physical testing — Part 1: Conventional sheet-former method

## 3 Terms and definitions

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

#### 3.1

## water absorptiveness (Cobb value)

calculated mass of water absorbed in a specified time by 1 m<sup>2</sup> of paper or board under specified conditions

Note 1 to entry: The test area is normally 100 cm<sup>2</sup>.

## 4 Principle

A test piece is weighed immediately before and immediately after exposure for a specified time of one surface to water, followed by blotting. The result of the increase in mass is expressed in grams per square metre  $(g/m^2)$ .

## 5 Reagents and materials

- **5.1 Water, distilled or deionized**. The temperature of the water is important and should be maintained during the test at the temperature used for conditioning and testing.
- **5.2 Blotting paper,** having a grammage of  $250 \text{ g/m}^2 \pm 25 \text{ g/m}^2$ . Pulp evaluation blotters are acceptable for the purposes of this International Standard (see ISO 5269-1).