

**Toiduainetega kokkupuutuv paber ja papp. Fluorestseeriva valgendiga valgendatud paberi ja papi värvikindluse määramine**

Paper and board intended to come into contact with foodstuffs - Determination of the fastness of fluorescent whitened paper and board

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 648:2006 sisaldab Euroopa standardi EN 648:2006 ingliskeelset teksti.	This Estonian standard EVS-EN 648:2006 consists of the English text of the European standard EN 648:2006.
Käesolev dokument on jõustatud 24.11.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.	This document is endorsed on 24.11.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

<b>Käsitlusala:</b> Standard kirjeldab menetlusi toiduainetega kokkupuutuva paberi ja papi teimimiseks, mis on valgendatud fluorestseerivate valgenditega. Esitatud on kaks menetlust. Menetlus A pikaajalise kontakti jaoks (näit. toiduainete pakendid) ja menetlus B lühiajalise kontakti jaoks (näit. salvrätid, köögipaber, majapidamispaber).	<b>Scope:</b> This document specifies procedures for the testing of fluorescent whitened paper and board intended to come into contact with foodstuffs. Two procedures are given, procedure A for contact of long duration (e. g. Food packaging) and procedure B, for contact of short duration (e. g. napkins, kitchen papers, household papers).
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**Võtmesõnad:** bleaching agents, bleaching fastness, board (paper), brightener, colour fastness, colourfastness, definition, definitions, edible paper, food packages, food products, food-container c, lightening agents, materials in contact with food, packages, packing, paper, testing

English Version

**Paper and board intended to come into contact with foodstuffs -  
Determination of the fastness of fluorescent whitened paper and  
board**

Papier et carton destinés à entrer en contact avec les  
denrées alimentaires - Détermination de la solidité du  
papier et du carton blanchis par des agents d'azurage  
fluorescents

Papier und Pappe vorgesehen für den Kontakt mit  
Lebensmitteln - Bestimmung der Farbechtheit von optisch  
aufgehelltem Papier und Pappe

This European Standard was approved by CEN on 24 August 2006.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, 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.



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## Foreword

This document (EN 648:2006) has been prepared by 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 March 2007, and conflicting national standards shall be withdrawn at the latest by March 2007.

This document supersedes EN 648:2003.

With regard to EN 648:2003 the following changes has been made:

- a) the test fluid "sodium carbonate solution" has been omitted and the test fluid "saliva stimulant" has been introduced to cover a demand..
- b) editorial changes

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

## 1 Scope

This document specifies procedures for the testing of the fastness of fluorescent whitened paper and board intended to come into contact with foodstuffs. Two procedures are given, procedure A for contact of long duration (e. g. food packaging) and procedure B, for contact of short duration (e. g. napkins, kitchen papers, household papers).

## 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.

EN ISO 186, *Paper and board — Sampling to determine average quality (ISO 186:2002)*

ISO 8787, *Paper and board — Determination of capillary rise — Klemm method*

## 3 Terms and definitions

For the purposes of this document, the following term and definition applies.

### 3.1 fastness

ineffective transfer of fluorescent whitening agent from paper, to a glass fibre paper saturated with a test fluid and evaluated visually under UV-light against a series of comparison papers

## 4 Principle

A sample is brought into contact with glass fibre papers which have been saturated with a test fluid and placed under load for a given time. The staining of the glass fibre paper is evaluated by comparison with a series of fluorescent whitened comparison papers. The test fluids used are distilled or deionised water, dilute acetic acid, saliva simulant and olive oil depending on the type of food contact expected.

## 5 Materials and equipment

**5.1** Unstained glass fibre papers of 60 mm × 90 mm. The glass fibre papers shall meet the following conditions:

- a) grammage of 70 g/m<sup>2</sup>;
- b) capillary rise of 190 mm to 210 mm in 10 min in accordance with ISO 8787;
- c) free from fluorescent whitening and wet strength agents;
- d) free from cellulosic fibres.

**5.2** Glass fibre papers with a diameter of 30 mm. The glass fibre papers shall meet the same conditions as in 5.1.

**5.3** Watch glass dish with a diameter of 40 mm.

**5.4** Glass plates, 60 mm × 90 mm.