

Toiduainetega kokkupuutuv paber ja papp. Antimikroobsete koostisosiste ülekande määramine

Paper and board intended to come into contact with foodstuffs - Determination of the transfer of antimicrobial constituents

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1104:2005 sisaldab Euroopa standardi EN 1104:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1104:2005 consists of the English text of the European standard EN 1104:2005.</p> <p>This document is endorsed on 29.09.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This European Standard specifies a method for the determination of transfer of antimicrobial constituents from paper and board materials and articles intended for food contact</p>	<p>Scope: This European Standard specifies a method for the determination of transfer of antimicrobial constituents from paper and board materials and articles intended for food contact.</p>
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ICS 67.250, 85.060

Võtmesõnad:

English Version

**Paper and board intended to come into contact with foodstuffs -
Determination of the transfer of antimicrobial constituents**

Papier et carton destinés à entrer en contact avec des
denrées alimentaires - Détermination du transfert des
constituants antimicrobiens

Papier und Pappe vorgesehen für den Kontakt mit
Lebensmitteln - Bestimmung des Übergangs
antimikrobieller Bestandteile

This European Standard was approved by CEN on 27 June 2005.

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.

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Foreword

This European Standard (EN 1104:2005) 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 February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This European Standard supersedes EN 1104:1995.

With regard to EN 1104:1995 the following changes have been made:

- a) description of the preparation of some reagents were partly modified;
- b) more detailed description of the procedure was formulated;
- c) editorial updating.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a method for the determination of transfer of antimicrobial constituents from paper and board materials and articles intended for food contact.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. 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)*

3 Terms and definitions

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

3.1

inhibition zone

zone formed around the test pieces, placed on nutrient medium, which has been seeded with a pre-selected test organism that releases water-soluble antimicrobial constituents.

4 Principle

A prepared nutrient medium is mixed with an appropriate inoculum and poured into Petri dishes. The test pieces are placed on the semi solid nutrient medium and then incubated. When incubation is terminated, the existence of an inhibition zone is an indicator of the release of antimicrobial constituents.

The test is performed with a bacterium, *Bacillus subtilis*, and with a fungus, *Aspergillus niger*.

NOTE The result is based on a visual inspection.

5 Apparatus

5.1 Punch iron,

$d = 10 \text{ mm to } 15 \text{ mm}$, sterilizable.

5.2 Pressing device,

suitable for pressing the test pieces on the agar plate (e.g. Drygalski spatula).

5.3 Zone reading device,

to measure the diameter of inhibition.

NOTE Measuring the diameter of the inhibition zone is not compulsory.