SLOVENSKI STANDARD
SIST EN 647:1997

01-september-1997

Papir, karton in lepenka v neposrednem stiku z živili - Priprava vročega vodnega ekstrakta

Paper and board intended to come into contact with foodstuffs - Preparation of a hot water extract

Papier und Pappe vorgesehen für den Kontakt mit Lebensmitteln - Herstellung eines Heißwasserextraktes

Papier et carton destinés a entrer en contact avec les denrées alimentaires - Préparation d'un extrait aqueux a chaud

Ta slovenski standard je istoveten z: **EN 647:1993**

ICS:

67.250	Materiali in predmeti v stiku z živili	Materials and articles in contact with foodstuffs
85.060	Papir, karton in lepenka	Paper and board

SIST EN 647:1997 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 647:1993

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Descriptors: Paper, paperboards, food products, food-container contact, aqueous extract, preparation, leaching tests, distilled water

English version

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Papier et carton destinés à entrer en contact avec les denrées alimentaires - Préparation d'un extrait aqueux à chaud

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been prepared by the 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 National Standard, either by publication of an identical text or by endorsement, at the latest by april 1994, and conflicting National Standards shall be withdrawn at the latest by april 1994.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard describes the preparation of a hot water extract for investigations of certain extractives in paper and board intended to come into contact with foodstuffs.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ISO 186 Paper and board - Sampling to determine average quality

ISO 287 Paper and board - Determination of moisture content - Oven drying method

ISO 536 Paper and board - Determination of grammage

ISO 1042 Laboratory glassware - One-mark volumetric flasks

ISO 1773 Laboratory glassware - Boiling flasks (narrow necked)

ISO 6556 Laboratory glassware - Filter flasks

3 Definition

For the purposes of this standard, the following definition applies.

Hot water extract

The filtered water solution obtained as a result of the hot extraction.

NOTE: In certain instances this extract can contain small amounts of suspended particles.

4 Principle

The sample is torn or cut and extracted with water for 2 h + 5 min in a water bath of (80 ± 2) °C, shaking occasionally. After extraction, the extract is filtered if necessary. The extract or the filtrate (hot water extract) is used for the investigation of the extractives.

5 Reagents

5.1 Distilled water or water of equal purity.

NOTE: The quality of the water should be in accordance with the requirements of the appropriate test method for the determination of the specific extractive.

6 Apparatus

Ordinary laboratory apparatus and:

6.1 Balance, accurate to 0,001 g.

6.2 500 ml conical flask, wide neck with ground glass stopper with tap (see ISO 1773).

6.3 Filtration equipment, fritted-glass filter porosity 4 (nom. size 90) with filterflask of 500 ml (see ISO 6556).

6.4 Graduated measuring cylinder 250 ml.

6.5 One-mark volumetric flask, 250 ml (see ISO 1042).

6.6 Protective gloves.

6.7 Thermostatic water bath, suitable to control temperature in the range (80 ± 2) °C.

6.8 Ceramic scissors (needed only for the determination of metals).

7 Sampling

7.1 Sampling is carried out in accordance with ISO 186. Do not touch the test area of sample or test specimen with the fingers; use protective gloves (6.6).

7.2 A minimum of 10 g of sample is required.

7.3 If required, take a separate sample for the determination of the grammage in accordance with ISO 536 and/or for the determination of moisture content (see ISO 287).

8 Procedure

8.1 Tear or cut the sample as taken into pieces approx. 1 cm² to 2 cm². Use protective gloves (6.6).

8.2 Weigh (10 ± 0,1) g of the test pieces to an accuracy of 0,01 g, put them into the conical flask (6.2), add 200 ml (6.4) of boiling water (5.1), and stopper the flask. Leave this preparation to stand for 2 h + 0 min in a water bath of (80 ± 2) °C, shaking occasionally.
5
Decant the solution and wash test pieces in the flask twice with water of 80 °C. If necessary filter the hot preparation (6.3). Transfer the extract and washings or the filtrate to a marked volumetric flask (6.5), cool to (23 ± 2) °C and fill up to the mark with water. Use the content of the flask for further investigation.

NOTE: If necessary scaling up can be done but not more than twice.

8.3 Before subsampling the extract is reheated.

NOTE: If precipitation occurs the extract is stirred before subsampling.