Leather - Chemical determination of formaldehyde content - Part 2: Method using colorimetric analysis

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FESTI STANDARDI FESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN ISO 17226-2:2008 sisaldab Euroopa standardi EN ISO 17226-2:2008 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 20.06.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 01.05.2008.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 17226-2:2008 consists of the English text of the European standard EN ISO 17226-2:2008.

This standard is ratified with the order of Estonian Centre for Standardisation dated 20.06.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

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Võtmesõnad:

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EUROPEAN STANDARD NORME EUROPÉENNE

EN ISO 17226-2

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Supersedes CEN ISO/TS 17226:2003

English Version

Leather - Chemical determination of formaldehyde content - Part 2: Method using colorimetric analysis (ISO 17226-2:2008)

Cuir - Dosage chimique du formaldéhyde - Partie 2: Méthode par analyse colorimétrique (ISO 17226-2:2008) Leder - Chemische Bestimmung des Formaldehydgehalts -Teil 2: Kolorimetrische Analyse (ISO 17226-2:2008)

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

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Foreword

This document (EN ISO 17226-2:2008) has been prepared by Technical Committee CEN/TC 289 "Leather", the secretariat of which is held by UNI in collaboration with Technical Committee ISO/TC IULTCS "International Union of Leather Technologists and Chemists Societies".

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of an identical text or by endorsement, at the latest by November 2008, and conflicting national standards shall be withdrawn at the latest by November 2008.

This document, together with EN ISO 17226-1:2008, supersedes CEN ISO/TS 17226:2003.

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Leather — Chemical determination of formaldehyde content —

Part 2:

Method using colorimetric analysis

1 Scope

This part of ISO 17226 specifies a method for the determination of free and released formaldehyde in leathers. This method is based on colorimetric analysis.

The formaldehyde content is taken to be the quantity of free-formaldehyde and formaldehyde extracted through hydrolysis contained in a water extract from the leather under standard conditions.

This process is not absolutely selective for formaldehyde. Other compounds such as extracted dyes could interfere at 412 nm.

2 Conformance

When compared with ISO 17226-1, the two analytical methods should give similar trends but not necessarily the same absolute result. Therefore, in the case of dispute, ISO 17226-1 shall be used in preference.

3 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 2418, Leather — Chemical, physical and mechanical and fastness tests — Sampling location

ISO 3696:1987, Water for analytical laboratory use — Specification and test methods

ISO 4044, Leather — Chemical tests — Preparation of chemical test samples

ISO 4684, Leather — Chemical tests — Determination of volatile matter

ISO 17226-1, Leather — Chemical determination of formaldehyde content — Part 1: Method using high performance liquid chromatography

4 Principle

The leather sample is eluted with detergent solution at 40 °C. The eluate is treated with acetylacetone, whereby formaldehyde reacts to give a yellow compound (3,5-diacetyl-1,4-dihydrolutidine). The absorbance of this compound is measured at 412 nm. The amount of formaldehyde corresponding to the absorbance value for the test specimen is obtained from a calibration curve prepared under identical conditions.

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