# Leather - Chemical tests - Determination of chromium(VI) content

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## **EESTI STANDARDI EESSÕNA**

## **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 17075:2008 sisaldab Euroopa standardi EN ISO 17075:2007 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 28.01.2008 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

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

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN ISO 17075:2008 consists of the English text of the European standard EN ISO 17075:2007.

This standard is ratified with the order of Estonian Centre for Standardisation dated 28.01.2008 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text.

The standard is available from Estonian standardisation organisation.

ICS 59.140.30

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## EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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### **English Version**

## Leather - Chemical tests - Determination of chromium(VI) content (ISO 17075:2007)

Cuir - Essais chimiques - Détermination de la teneur en chrome(VI) (ISO 17075:2007)

Leder - Chemische Prüfungen - Bestimmung des Chrom(VI)-Gehalts (ISO 17075:2007)

This European Standard was approved by CEN on 24 October 2007.

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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 17075:2007) has been prepared by Technical Committee CEN/TC 289 "Leather", the secretariat of which is held by UNI, in collaboration with the International Union of Leather Technologists and Chemists Societies (IULTCS).

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of an identical text or by endorsement, at the latest by May 2008, and conflicting national standards shall be withdrawn at the latest by May 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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## Leather — Chemical tests — Determination of chromium(VI) content

## 1 Scope

This International Standard specifies a method for determining chromium(VI) in solutions leached from leather under defined conditions. The method described is suitable to quantify the chromium(VI) content in leathers down to 3 mg/kg.

This document is applicable to all leather types.

## 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.

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

ISO 3696, 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

#### 3 Terms and definitions

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

#### 3 1

### chromium(VI) content

amount of chromium(VI) in leather determined by this method after extraction with an aqueous salt solution at pH 7,5 to 8,0

NOTE The chromium(VI) content is reported as chromium(VI) in milligrams per kilogram (mg/kg), expressed as the dry mass of the sample.

### 4 Principle

Soluble chromium(VI) is leached from the sample in phosphate buffer at pH 7,5 to 8,0 and substances which influence the detection are removed by solid phase extraction if necessary. The chromium(VI) in solution oxidizes 1,5-diphenylcarbazide to 1,5-diphenylcarbazone to give a red/violet complex with chromium which can be quantified photometrically at 540 nm.

The results obtained from the described method are strictly dependent on the extraction conditions. Results obtained by using other extraction procedures (extraction solution, pH, extraction time, etc.) are not comparable with the results produced by the procedure described in this standard.

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