



# SLOVENSKI STANDARD

## SIST EN ISO 20536:2018

01-februar-2018

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**Obutev - Kritične snovi, ki so lahko v obutvi in delih obutve - Določevanje fenola v obutvenih materialih (ISO 20536:2017)**

Footwear - Critical substances potentially present in footwear and footwear components - Determination of phenol in footwear materials (ISO 20536:2017)

Schuhe - Möglicherweise in Schuhen und Schuhbestandteilen vorhandene kritische Substanzen - Bestimmung von Phenol in Schuhwerkstoffen (ISO 20536:2017)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussure - Détermination du phénol dans les matériaux de chaussure (ISO 20536:2017)

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**Ta slovenski standard je istoveten z: EN ISO 20536:2017**

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**ICS:**

61.060            Obuvala    Footwear

**SIST EN ISO 20536:2018**    **en,fr,de**

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EUROPEAN STANDARD

EN ISO 20536

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2017

ICS 61.060

English Version

## Footwear - Critical substances potentially present in footwear and footwear components - Determination of phenol in footwear materials (ISO 20536:2017)

Chaussures - Substances critiques potentiellement présentes dans les chaussures et les composants de chaussure - Détermination du phénol dans les matériaux de chaussure (ISO 20536:2017)

Schuhe - Möglicherweise in Schuhen und Schuhbestandteilen vorhandene kritische Substanzen - Bestimmung von Phenol in Schuhwerkstoffen (ISO 20536:2017)

This European Standard was approved by CEN on 28 August 2017.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## European foreword

This document (EN ISO 20536:2017) has been prepared by Technical Committee ISO/TC 216 "Footwear" in collaboration with Technical Committee CEN/TC 309 "Footwear" the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by May 2018, and conflicting national standards shall be withdrawn at the latest by May 2018.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

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STANDARD

ISO  
20536

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2017-09

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**Footwear — Critical substances  
potentially present in footwear  
and footwear components —  
Determination of phenol in footwear  
materials**

*Chaussures — Substances critiques potentiellement présentes dans  
les chaussures et les composants de chaussure — Détermination du  
phénol dans les matériaux de chaussure*

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ISO copyright office  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org



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## ISO 20536:2017(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html). (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 216, *Footwear*.

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# Footwear — Critical substances potentially present in footwear and footwear components — Determination of phenol in footwear materials

**WARNING** — The user of this document should have work experience in a formal laboratory. This document does not indicate all possible safety issues. Users are responsible for taking appropriate safety and health practices.

## 1 Scope

This document specifies a method to determine the amount of phenol in footwear and footwear components. It is applicable to all parts of footwear except for metal parts.

NOTE ISO/TR 16178:2012, Table 1 defines which materials are included in this determination.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 4787, *Laboratory glassware — Volumetric instruments — Methods for testing of capacity and for use*

## 3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

## 4 Principle

The sample is cut in small pieces and extracted with a mixture of toluene/acetone (80/20) percent by volume, in a sealed vial at 60 °C in an ultrasonic bath for 1 h.

The extract is analysed by gas chromatography/mass spectrometry (GC-MS).

The method uses an extraction surrogate (Phenol-D6), added just before the extraction step and quantified similar to a target compound. It is required to check the extraction efficiency and to calculate a recovery rate.

Anthracene-D10 is used as the internal standard and is added to the vial (sample and calibration) just before the chromatographic analysis. It is also used to make the calibration curve.