

**SLOVENSKI STANDARD  
SIST EN ISO 17234-1:2020****01-november-2020****Nadomešča:****SIST EN ISO 17234-1:2015**

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**Usnje - Kemijski preskusi za določevanje nekaterih azo barvil na barvanem usnju -  
1. del: Določevanje nekaterih aromatskih aminov, izviraajočih iz azo barvil (ISO  
17234-1:2020)**

Leather - Chemical tests for the determination of certain azo colorants in dyed leathers -  
Part 1: Determination of certain aromatic amines derived from azo colorants (ISO 17234-  
1:2020)

**iTeh STANDARD PREVIEW**

Leder - Chemische Prüfungen zur Bestimmung bestimmter Azofarbstoffe in gefärbten  
Ledern - Teil 1: Bestimmung bestimmter aromatischer Amine aus Azofarbstoffen (ISO  
17234-1:2020)

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Cuir - Essais chimiques pour le dosage de certains colorants azoïques dans les cuirs  
teints - Partie 1: Dosage de certaines amines aromatiques dérivées des colorants  
azoïques (ISO 17234-1:2020)

**Ta slovenski standard je istoveten z: EN ISO 17234-1:2020****ICS:**

59.140.30	Usnje in krzno	Leather and furs
71.040.40	Kemijska analiza	Chemical analysis

**SIST EN ISO 17234-1:2020****en,fr,de**

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EUROPEAN STANDARD

EN ISO 17234-1

NORME EUROPÉENNE

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English Version

## Leather - Chemical tests for the determination of certain azo colorants in dyed leathers - Part 1: Determination of certain aromatic amines derived from azo colorants (ISO 17234-1:2020)

Cuir - Essais chimiques pour le dosage de certains colorants azoïques dans les cuirs teints - Partie 1: Dosage de certaines amines aromatiques dérivées des colorants azoïques (ISO 17234-1:2020)

Leder - Chemische Prüfungen zur Bestimmung bestimmter Azofarbstoffe in gefärbten Ledern - Teil 1: Bestimmung bestimmter aromatischer Amine aus Azofarbstoffen (ISO 17234-1:2020)

This European Standard was approved by CEN on 27 July 2020.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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## European foreword

This document (EN ISO 17234-1:2020) has been prepared by Technical Committee ISO/IULTCS "International Union of Leather Technologists and Chemists Societies" in collaboration with Technical Committee CEN/TC 289 "Leather" the secretariat of which is held by UNI.

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 March 2021, and conflicting national standards shall be withdrawn at the latest by March 2021.

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.

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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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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ISO  
17234-1

IULTCS  
IUC 20-1

Third edition  
2020-08

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**Leather — Chemical tests for  
the determination of certain azo  
colourants in dyed leathers —**

Part 1:

**Determination of certain aromatic  
amines derived from azo colourants**

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*Cuir — Essais chimiques pour le dosage de certains colorants  
azoïques dans les cuirs teints —*

*Partie 1: Dosage de certaines amines aromatiques dérivées des  
colorants azoïques*

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# ISO 17234-1:2020(E) IULTCS/IUC 20-1:2020(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)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of 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 [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by the Chemical Test Commission of the International Union of Leather Technologists and Chemists Societies (IUC Commission, IULTCS) in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 289, *Leather*, the secretariat of which is held by UNI, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). This method is technically similar to the method in IUC 20, which was declared an official method at the IULTCS Delegates meeting on 31st May 2003 in Cancun, Mexico.

IULTCS, originally formed in 1897, is a world-wide organization of professional leather societies to further the advancement of leather science and technology. IULTCS has three Commissions, which are responsible for establishing international methods for the sampling and testing of leather. ISO recognizes IULTCS as an international standardizing body for the preparation of test methods for leather.

This third edition cancels and replaces the second edition (ISO 17234-1:2015), which has been technically revised.

The main changes to the previous edition are as follows:

- a new [Clause 3](#) added;
- technical changes to [Clause 7](#) and [Clause 8](#);
- changes to [Clause 9](#) and [Clause 10](#) to improve the method;
- [Annex C](#) expanded to give examples of false-positive results, suggested procedures and suggested comments in the test report;
- a new informative [Annex D](#) added.

A list of all parts in the ISO 17234 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

# Leather — Chemical tests for the determination of certain azo colourants in dyed leathers —

## Part 1:

# Determination of certain aromatic amines derived from azo colourants

## 1 Scope

This document specifies a method for determining the use of certain azo colourants which can release certain aromatic amines.

## 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 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 17234-2, *Leather — Chemical tests for the determination of certain azo colorants in dyed leathers — Part 2: Determination of 4-aminoazobenzene*

## 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:

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

## 4 General

Certain azo colourants can release, by reductive cleavage of azo group(s), one or more of the aromatic amines listed in EU Regulation 1907/2006, Annex XVII, Appendix 8<sup>[2]</sup> and GB 20400-2006<sup>[3]</sup> (see [Table 1](#)).

**ISO 17234-1:2020(E)**  
**IULTCS/IUC 20-1:2020(E)**
**Table 1 — Aromatic amines listed in EU Regulation 1907/2006, Annex XVII, Appendix 8<sup>[2]</sup> and GB 20400-2006<sup>[3]</sup>**

No.	CAS number	Index number	EC number	Substances
1	92-67-1	612-072-00-6	202-177-1	biphenyl-4-ylamine 4-aminobiphenyl xenylamine
2	92-87-5	612-042-00-2	202-199-1	benzidine
3	95-69-2	612-196-00-0	202-441-6	4-chloro- <i>o</i> -toluidine
4	91-59-8	612-022-00-3	202-080-4	2-naphthylamine
5 <sup>a</sup>	97-56-3	611-006-00-3	202-591-2	<i>o</i> -aminoazotoluene 4-amino-2',3-dimethylazobenzene 4- <i>o</i> -tolylazo- <i>o</i> -toluidine
6 <sup>a</sup>	99-55-8	612-210-00-5	202-765-8	5-nitro- <i>o</i> -toluidine 2-amino-4-nitrotoluene
7	106-47-8	612-137-00-9	203-401-0	4-chloroaniline
8	615-05-4	612-200-00-0	210-406-1	4-methoxy- <i>m</i> -phenylenediamine 2,4-diaminoanisole
9	101-77-9	612-051-00-1	202-974-4	4,4'-methylenedianiline 4,4'-diaminodiphenylmethane
10	91-94-1	612-068-00-4	202-109-0	3,3'-dichlorobenzidine 3,3'-dichlorobiphenyl-4,4'-ylenediamine
11	119-90-4	612-036-00-X	204-355-4	3,3'-dimethoxybenzidine <i>o</i> -dianisidine
12	119-93-7	612-041-00-7	204-358-0	3,3'-dimethylbenzidine 4,4'-bi- <i>o</i> -toluidine
13	838-88-0	612-085-00-7	212-658-8	4,4'-methylenedi- <i>o</i> -toluidine
14	120-71-8	612-209-00-X	204-419-1	6-methoxy- <i>m</i> -toluidine <i>p</i> -cresidine
15	101-14-4	612-078-00-9	202-918-9	4,4'-methylene-bis-(2-chloro-aniline) 2,2'-dichloro-4,4'-methylene-dianiline
16	101-80-4	612-199-00-7	202-977-0	4,4'-oxydianiline
17	139-65-1	612-198-00-1	205-370-9	4,4'-thiodianiline
18	95-53-4	612-091-00-X	202-429-0	<i>o</i> -toluidine 2-aminotoluene
19	95-80-7	612-099-00-3	202-453-1	4-methyl- <i>m</i> -phenylenediamine 2,4-toluylendiamine 2,4-diaminotoluene
20	137-17-7	612-197-00-6	205-282-0	2,4,5-trimethylaniline
21	90-04-0	612-035-00-4	201-963-1	<i>o</i> -anisidine 2-methoxyaniline
22 <sup>b</sup>	60-09-3	611-008-00-4	200-453-6	4-aminoazobenzene
23 <sup>c</sup>	95-68-1	612-027-00-0	202-440-0	2,4-xylidine 2,4-dimethylbenzene-1-amine
24 <sup>c</sup>	87-62-7	612-161-00-X	201-758-7	2,6-xylidine 2,6-dimethylbenzene-1-amine

<sup>a</sup> The CAS-numbers 97-56-3 (no. 5) and 99-55-8 (no. 6) are further reduced to CAS-numbers 95-53-4 (no. 18) and 95-80-7 (no. 19).

<sup>b</sup> Azo colourants that are able to form 4-aminoazobenzene generate under the condition of this method aniline CAS-number 62-53-3) and 1,4-phenylenediamine (CAS number 106-50-3). The presence of these colourants shall be tested using ISO 17234-2.

<sup>c</sup> Additional aromatic amines in GB 20400-2006.