



**SLOVENSKI STANDARD**  
**SIST EN ISO 10339:2000**  
**01-januar-2000**

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Ophthalmic optics - Contact lenses - Determination of water content of hydrogel lenses  
(ISO 10339:1997)

Augenoptik - Kontaktlinsen - Bestimmung des Wassergehalts von Hydrogelkontaktlinsen  
(ISO 10339:1997)

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

Optique ophtalmique - Lentilles de contact - Détermination de la teneur en eau des  
lentilles en hydrogel (ISO 10339:1997)

<https://standards.iteh.ai/catalog/standards/sist/cd9c946c-8878-4618-8937-aa35bf81a61e/sist-en-iso-10339-2000>

**Ta slovenski standard je istoveten z: EN ISO 10339:1999**

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**ICS:**

11.040.70      Oftalmološka oprema      Ophthalmic equipment

**SIST EN ISO 10339:2000**      **en**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 10339**

April 1999

ICS 11.040.70

English version

**Ophthalmic optics - Contact lenses - Determination of water  
content of hydrogel lenses (ISO 10339:1997)**

Optique ophtalmique - Lentilles de contact - Détermination  
de la teneur en eau des lentilles en hydrogel (ISO  
10339:1997)

Augenoptik - Kontaktlinsen - Bestimmung des  
Wassergehalts von Hydrogelkontaktlinsen (ISO  
10339:1997)

This European Standard was approved by CEN on 2 April 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

## Foreword

The text of the International Standard from Technical Committee ISO/TC 172 "Optics and optical instruments" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 170 "Ophthalmic optics", the secretariat of which is held by DIN.

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 October 1999, and conflicting national standards shall be withdrawn at the latest by October 1999.

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

## Endorsement notice

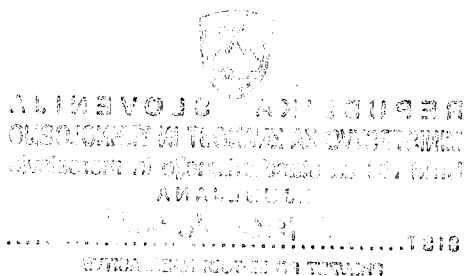
The text of the International Standard ISO 10339:1997 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

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**ANNEX ZA (normative)****Normative references to international publications with their corresponding European publications**

This European Standard incorporates by dated or undated references, 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.

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Publication	Year	Title	EN	Year
ISO 10344	1996	Optics and optical instruments - Contact lenses - Saline solution for contact lens testing	EN ISO 10344	1998

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INTERNATIONAL  
STANDARD

ISO  
10339

First edition  
1997-09-15

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**Ophthalmic optics — Contact lenses —  
Determination of water content of hydrogel  
lenses**

*Optique ophtalmique — Lentilles de contact — Détermination de la teneur  
en eau des lentilles en hydrogel*

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Reference number  
ISO 10339:1997(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10339 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

Annex A forms an integral part of this International Standard. Annexes B and C are for information only.

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Printed in Switzerland



# Ophthalmic optics — Contact lenses — Determination of water content of hydrogel lenses

## 1 Scope

This International Standard describes methods for the determination of water content of hydrogel contact lenses. It specifies the procedures for making the measurements and establishes the conditions under which the measurements are to be made.

## 2 Normatives references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8320:1986, *Optics and optical instruments — Contact lenses — Vocabulary and symbols*.

<https://standards.iteh.ai/catalog/standards/sist/cd9c946c-8878-4618-8937->

ISO 10344:1996, *Optics and optical instruments — Contact lenses — Saline solution for contact lens testing*.

## 3 Definitions

For the purposes of this International Standard, the definitions given in ISO 8320:1986 and the following definition apply.

### 3.1 water content, $w_{\text{H}_2\text{O}}$

Amount of water (expressed as percent by mass fraction) present in a hydrated hydrogel contact lens which is fully equilibrated with saline solution under specified conditions of temperature.

$$w_{\text{H}_2\text{O}} (\%) = \frac{m_{\text{H}_2\text{O}}}{m_{\text{lens}}} \times 100$$

where

$m_{\text{H}_2\text{O}}$  is the mass of water;

$m_{\text{lens}}$  is the mass of the hydrated lens.

NOTE — In this context, dissolved solutes such as sodium chloride and buffers contribute to the mass of the hydrated lens.