

# SLOVENSKI STANDARD

## SIST EN ISO 11551:2020

01-februar-2020

Nadomešča:

SIST EN ISO 11551:2004

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**Optika in optični instrumenti - Laserji in laserska oprema - Preskusna metoda za absorpcijo optičnih laserskih komponent (ISO 11551:2019)**

Optics and photonics - Lasers and laser-related equipment - Test method for absorbance of optical laser components (ISO 11551:2019)

Optik und Photonik - Laser und Laseranlagen - Prüfverfahren für den Absorptionsgrad von optischen Laserkomponenten (ISO 11551:2019)

Optique et photonique - Lasers et équipements associés aux lasers - Méthode d'essai du facteur d'absorption des composants optiques pour lasers (ISO 11551:2019)

**Ta slovenski standard je istoveten z: EN ISO 11551:2019**

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**ICS:**

31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment
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**SIST EN ISO 11551:2020**

**en**

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EUROPEAN STANDARD

EN ISO 11551

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019

ICS 31.260

Supersedes EN ISO 11551:2003

English Version

## Optics and photonics - Lasers and laser-related equipment - Test method for absorptance of optical laser components (ISO 11551:2019)

Optique et photonique - Lasers et équipements  
associés aux lasers - Méthode d'essai du facteur  
d'absorption des composants optiques pour lasers (ISO  
11551:2019)

Optik und Photonik - Laser und Laseranlagen -  
Prüfverfahren für den Absorptionsgrad von optischen  
Laserkomponenten (ISO 11551:2019)

This European Standard was approved by CEN on 21 October 2019.

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## European foreword

This document (EN ISO 11551:2019) has been prepared by Technical Committee ISO/TC 172 "Optics and photonics" in collaboration with Technical Committee CEN/TC 123 "Lasers and photonics" 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of an identical text or by endorsement, at the latest by May 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

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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**Optics and photonics — Lasers and  
laser-related equipment — Test  
method for absorptance of optical  
laser components**

*Optique et photonique — Lasers et équipements associés aux lasers  
— Méthode d'essai du facteur d'absorption des composants optiques  
pour lasers*

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## ISO 11551:2019(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)).

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This document was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee 9, *Laser and electro-optical systems*.

This third edition cancels and replaces the second edition ISO 11551:2003 which has been technically revised.

The main changes compared to the previous edition are as follows:

- a) Introduction: The assumptions were revised in the second paragraph. Minor wording and example adjustment in third paragraph.
- b) [Clause 4](#): Table for symbols and units was corrected.
- c) [Clause 5](#): More detailed specification of environmental conditions for UV- and IR applications are provided in the second paragraph. ISO 7 specification was deleted.

In the fourth paragraph, [Annex A](#) is explicitly mentioned for the dependence of absorption on other test parameters.

In the fifth paragraph, [Annex B](#) is explicitly mentioned to account for the critical issue of finite heat conductivity.

- d) In [7.2.3](#): In the first paragraph, the calibration procedure is specified in more detail, including the consideration of the heating scheme for thick samples.

Note 1 is complemented by the restriction for thin samples.

Note 2 is complemented with the consideration of heating scheme for finite heat conduction.

- e) In [7.3](#): In the first paragraph the specifications for the ambient temperature drift were clarified.

The requirements to the total temperature rise during heating were generalized.