



**SLOVENSKI STANDARD**  
**SIST EN ISO 13697:2006**

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Optics and photonics - Lasers and laser-related equipment - Test methods for specular reflectance and regular transmittance of optical laser components (ISO 13697:2006)

Optik und Photonik - Laser und Laseranlagen - Prüfverfahren für die spekulare Reflexion und die gerichtete Transmission von optischen Laserkomponenten (ISO 13697:2006)

Optique et photonique - Lasers et équipements associés aux lasers - Méthodes d'essai du facteur de réflexion spéculaire et du facteur de transmission des composants optiques laser (ISO 13697:2006)

**Ta slovenski standard je istoveten z: EN ISO 13697:2006**

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**ICS:**

31.260	Optoelektronika, laserska oprema	Optoelectronics. Laser equipment
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ICS 31.260

English Version

Optics and photonics - Lasers and laser-related equipment -  
Test methods for specular reflectance and regular transmittance  
of optical laser components (ISO 13697:2006)

Optique et photonique - Lasers et équipements associés  
aux lasers - Méthodes d'essai du facteur de réflexion  
spéculaire et du facteur de transmission des composants  
optiques laser (ISO 13697:2006)

Optik und Photonik - Laser und Laseranlagen -  
Prüfverfahren für den gerichteten Reflexionsgrad und den  
Transmissionsgrad von optischen Laserkomponenten (ISO  
13697:2006)

This European Standard was approved by CEN on 13 April 2006.

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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.

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## Foreword

This document (EN ISO 13697:2006) has been prepared by Technical Committee ISO/TC 172 "Optics and optical instruments" 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of an identical text or by endorsement, at the latest by November 2006, and conflicting national standards shall be withdrawn at the latest by November 2006.

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

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laser-related equipment — Test methods  
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transmittance of optical laser  
components**

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*Optique et photonique — Lasers et équipements associés aux lasers —  
Méthodes d'essai du facteur de réflexion spéculaire et du facteur de  
transmission des composants optiques laser*  
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## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 13697 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 9, *Electro-optical systems*.

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## Introduction

Laser-based optical systems require optical components with greatly enhanced reflectance and/or transmission characteristics. It is necessary to be able to measure these characteristics precisely. The measurement procedures in this International Standard have been optimized to allow the measurement of the specular reflectance and transmittance of the optical components to a high degree of accuracy over a wide range of values.

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# Optics and photonics — Lasers and laser-related equipment — Test methods for specular reflectance and regular transmittance of optical laser components

## 1 Scope

This International Standard specifies measurement procedures for the precise determination of the specular reflectance and regular transmittance of optical laser components. The accuracy of the described test methods exceeds that of measurement procedures outlined in ISO 15368 by several orders of magnitude.

## 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 31-6, *Quantities and units — Part 6: Light and related electromagnetic radiations*

ISO 11145, *Optics and photonics — Lasers and laser-related equipment — Vocabulary and symbols*

ISO 14644-1, *Cleanrooms and associated controlled environments — Part 1: Classification of air cleanliness*

## 3 Terms and definitions

For the purpose of this document, the terms and definitions given in ISO 11145 and ISO 31-6 apply.