

**Personal protective equipment - Eye and face protection  
- Vocabulary (ISO 4007:2012)**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 4007:2012 sisaldb Euroopa standardi EN ISO 4007:2012 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 4007:2012 consists of the English text of the European standard EN ISO 4007:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kätesaadavaks 15.05.2012.	Date of Availability of the European standard is 15.05.2012.
Standard on kätesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 01.040.13, 13.340.20

### Standardite reproduutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Aru 10, 10317 Tallinn, Eesti; [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

### The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:  
Aru 10, 10317 Tallinn, Estonia; [www.evs.ee](http://www.evs.ee); phone 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

EN ISO 4007

May 2012

ICS 01.040.13; 13.340.20

Supersedes EN 165:2005

English Version

Personal protective equipment - Eye and face protection -  
Vocabulary (ISO 4007:2012)

Équipement de protection individuelle - Protection du visage et des yeux - Vocabulaire (ISO 4007:2012)

Persönliche Schutzausrüstung - Augen- und Gesichtsschutz - Wörterbuch (ISO 4007:2012)

This European Standard was approved by CEN on 10 May 2012.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

## Foreword

This document (EN ISO 4007:2012) has been prepared by Technical Committee ISO/TC 94 "Personal safety - Protective clothing and equipment" in collaboration with Technical Committee CEN/TC 85 "Eye protective equipment" the secretariat of which is held by AFNOR.

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 2012, and conflicting national standards shall be withdrawn at the latest by November 2012.

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

This document supersedes EN 165:2005.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 4007:2012 has been approved by CEN as a EN ISO 4007:2012 without any modification.

## Contents

	Page
<b>Foreword .....</b>	<b>vi</b>
<b>Introduction.....</b>	<b>ix</b>
<b>1 Scope.....</b>	<b>1</b>
<b>2 Terms relating to hazards .....</b>	<b>2</b>
<b>3 Terms relating to optical radiation and sources of radiation .....</b>	<b>3</b>
<b>3.1 Terms relating to optical radiation.....</b>	<b>3</b>
<b>3.2 Terms relating to sources of non-ionising radiation .....</b>	<b>7</b>
<b>4 Photometric terms.....</b>	<b>13</b>
<b>5 Terms relating to eye and face protection.....</b>	<b>20</b>
<b>5.1 General terms.....</b>	<b>20</b>
<b>5.2 Terms relating to the geometrical properties of eye and face protection .....</b>	<b>27</b>
<b>5.3 Terms relating to the non-ocular part of eye and face protection.....</b>	<b>31</b>
<b>5.4 Terms relating to welding protection<sup>4)</sup>.....</b>	<b>33</b>
<b>5.5 Terms relating to secondary oculars.....</b>	<b>34</b>
<b>6 Terms relating to optical materials.....</b>	<b>36</b>
<b>7 Terms relating to optical properties of components and oculars .....</b>	<b>39</b>
<b>8 Terms relating to the optical properties of oculars, excluding transmittance .....</b>	<b>44</b>
<b>8.1 Terms relating to the oculars .....</b>	<b>44</b>
<b>8.2 Terms relating to the eye and eye-protectors .....</b>	<b>51</b>
<b>9 Terms relating to filters .....</b>	<b>53</b>
<b>9.1 General terms.....</b>	<b>53</b>
<b>9.2 Terms relating to polarized light and polarizing filters.....</b>	<b>70</b>
<b>9.3 Terms relating to welding filters .....</b>	<b>74</b>
<b>10 Terms relating to test equipment .....</b>	<b>80</b>
<b>11 Glossary of abbreviations and symbols .....</b>	<b>83</b>
<b>Annex A (informative) Spectral weighting functions and spectral distributions .....</b>	<b>86</b>
<b>Bibliography.....</b>	<b>100</b>
<b>Alphabetical index.....</b>	<b>102</b>
<b>French alphabetical index (Index alphabétique) .....</b>	<b>105</b>
<b>German alphabetical index (Alphabetisches Verzeichnis).....</b>	<b>108</b>

## Introduction

This International Standard is based on EN 165, *Personal eye-protection — Vocabulary*, which has been withdrawn.

Although considered, there is no definition describing transmittance or absorptance properties of filters in the short-wavelength range from 380 nm to around 400 nm because there is no agreement at present on what the definition or requirement should be.

Terms relating to mesh visors and additional oculars have been omitted until required for the appropriate standards.

Words in bold within descriptions or notes refer to terms defined within this International Standard.

## Personal protective equipment — Eye and face protection — Vocabulary

## Équipement de protection individuelle — Protection du visage et des yeux — Vocabulaire

## Persönliche Schutzausrüstung — Augen- und Gesichtsschutz — Wörterbuch

### 1 Scope

This International Standard defines and explains the principal terms used in the field of personal eye and face protection.

**NOTE** This International Standard includes terms reproduced from the standards cited in Clause 2. At the time of publication of this International Standard, the quoted terms are identical to those in ISO 8624:2011, ISO 13666:—<sup>1</sup>), CIE 17.4:1987 and ISO/IEC Guide 51:1999. If, due to future revision of the aforementioned standards, there should be a disagreement between ISO 4007 and ISO 8624, ISO 13666, CIE 17.4 or ISO/IEC Guide 51, then the definitions in the latest version of ISO 8624, ISO 13666, CIE 17.4 or ISO/IEC Guide 51 take precedence.

### 1 Domaine d'application

La présente Norme internationale définit et explique les principaux termes utilisés dans le domaine de la protection du visage et de l'œil.

**NOTE** La présente Norme internationale comprend des termes extraits des normes mentionnées dans l'Article 2. À la date de publication de la présente Norme internationale, les termes concernés sont identiques à ceux contenus dans l'ISO 8624:2011, l'ISO 13666:—<sup>1</sup>), la CIE 17.4:1987 et l'ISO/CEI Guide 51:1999. Si, en raison d'une révision future de ces normes, il y avait un désaccord entre l'ISO 4007 et l'ISO 8624, l'ISO 13666, la CIE 17.4 ou l'ISO/CEI Guide 51, les définitions fournies dans la dernière version de l'ISO 8624, l'ISO 13666, la CIE 17.4 ou l'ISO/CEI Guide 51 prendraient le pas sur celles de l'ISO 4007.

### 1 Anwendungsbereich

Diese Internationale Norm definiert und erläutert die grundlegenden Begriffe aus dem Bereich des persönlichen Augen- und Gesichtsschutzes.

**ANMERKUNG** Diese Internationale Norm enthält Begriffe, die aus den unter Abschnitt 2 angeführten Normen übernommen wurden. Zum Zeitpunkt der Veröffentlichung dieser Norm sind die übernommenen Begriffe mit denen in ISO 8624:2011, ISO 13666:—<sup>1</sup>), CIE 17.4:1987 und ISO/IEC Guide 51:1999 identisch. Sollte es im Zuge der künftigen Überarbeitung der genannten Normen zu einer fehlenden Übereinstimmung zwischen ISO 4007 einerseits und ISO 8624, ISO 13666, CIE 17.4 oder ISO/IEC Guide 51 andererseits kommen, haben die Definitionen in der jeweils neuesten Version von ISO 8624, ISO 13666, CIE 17.4 oder ISO/IEC Guide 51 Vorrang.

1) To be published.

1) À publier.

1) Wird veröffentlicht.