

# ***Geregistreeerde Belgische norm***

## **NBN EN ISO 12312-1**

1e uitg., oktober 2013

**Normklasse: S 06**

### **Oog- en gezichtsbescherming - Zonnebrillen en soortgelijke brillen - Deel 1: Zonnebrillen voor algemeen gebruik (ISO 12312-1:2013)**

Protection des yeux et du visage - Lunettes de soleil et articles de lunetterie associés - Partie 1: Lunettes de soleil pour usage général (ISO 12312-1:2013)

Eye and face protection - Sunglasses and related eyewear - Part 1: Sunglasses for general use (ISO 12312-1:2013)

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Deze Europese norm bestaat in drie officiële versies (Duits, Engels, Frans).

***norme belge  
enregistrée***

**NBN EN ISO 12312-1**

1e éd., octobre 2013

**Indice de classement: S 06**

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**Protection des yeux et du visage - Lunettes de soleil et articles de lunetterie associés - Partie 1: Lunettes de soleil pour usage général (ISO 12312-1:2013)**

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La présente norme européenne EN ISO 12312-1:2013 a le statut d'une norme belge.

La présente norme européenne existe en trois versions officielles (allemand, anglais, français).

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 12312-1**

August 2013

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English Version

## Eye and face protection - Sunglasses and related eyewear - Part 1: Sunglasses for general use (ISO 12312-1:2013)

Protection des yeux et du visage - Lunettes de soleil et articles de lunetterie associés - Partie 1: Lunettes de soleil pour usage général (ISO 12312-1:2013)

Augen- und Gesichtsschutz - Sonnenbrillen und ähnlicher Augenschutz - Teil 1: Sonnenbrillen für den allgemeinen Gebrauch (ISO 12312-1:2013)

This European Standard was approved by CEN on 30 June 2013.

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.

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## Foreword

This document (EN ISO 12312-1:2013) 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 February 2014, and conflicting national standards shall be withdrawn at the latest by February 2014.

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 1836:2005+A1:2007.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive.

For relationship with EU Directive, see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, 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 12312-1:2013 has been approved by CEN as EN ISO 12312-1:2013 without any modification.

**Annex ZA**  
(informative)  
**Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal protective equipment**

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 89/686/EEC – Personal Protective Equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this International Standard and Directive 89/686/EEC

Clause(s)/sub-clause(s) of this International Standard	Essential Requirements (ERs) of Directive 89/686/EEC	Qualifying remarks/Notes
11	1.1.2.1. Highest level of protection possible	
5.1, 5.2, 5.3.1, 5.3.4	1.1.2.2. Classes of protection appropriate to different levels of risk	
9	1.2.1. Absence of risks and other 'inherent' nuisance factors	Ignitability of materials
4.3	1.2.1.1. Suitable constituent materials	This standard doesn't address essential requirement 1.2.1.1 with regard to the specific case of nickel release by metal parts of spectacle frames in contact with the skin. Suitable requirements and test methods for this parameter can be found in EN ISO 12870:2012, clause 4.2.3. The requirement in that clause (i.e. 0,5 µg/cm <sup>2</sup> /week) is the requirement set forth by Directive 94/27/EEC.
4.1	1.2.1.2. Satisfactory surface condition of all PPE parts in contact with the user	
4.2, 5.3.2, 5.3.3, 5.3.5.2.8	1.2.1.3. Maximum permissible user impediment	
11.1	1.3.1. Adaptation of PPE to user morphology	
7.1, 7.2, 8	1.3.2. Lightness and design strength	
12	1.4. Information supplied by the manufacturer	
6, 11	2.3. PPE for the face, eyes and	

Clause(s)/sub-clause(s) of this International Standard	Essential Requirements (ERs) of Directive 89/686/EEC	Qualifying remarks/Notes
	respiratory tracts	
12	2.12. PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety	
7.3, 7.6	3.1.1. Impact caused by falling or projecting objects and collision of parts of the body with an obstacle.	
5.1, 5.2, 5.3.1, 5.3.2, 5.3.4, 12	3.9.1. Non-ionizing radiation	

**WARNING:** Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.





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**Eye and face protection — Sunglasses  
and related eyewear —**

**Part 1:  
Sunglasses for general use**

*Protection des yeux et du visage — Lunettes de soleil et articles de  
lunetterie associés —*

*Partie 1: Lunettes de soleil pour usage général*





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## ISO 12312-1:2013(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.

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 12312-1 was prepared by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 6, *Eye and face protection*.

ISO 12312 consists of the following parts, under the general title *Eye and face protection — Sunglasses and related eyewear*:

— *Part 1: Sunglasses for general use*

The following parts are under preparation:

— *Part 2: Eye protectors for direct observation of the sun*

# Eye and face protection — Sunglasses and related eyewear —

## Part 1: Sunglasses for general use

### 1 Scope

This part of ISO 12312 is applicable to all afocal (plano power) sunglasses and clip-ons for general use, including road use and driving, intended for protection against solar radiation.

Information on the use of sunglass filters is given in [Annex A](#). Requirements for unmounted filters used as replacement or alternative filters are given in [Annex B](#).

This part of ISO 12312 is not applicable to:

- a) eyewear for protection against radiation from artificial light sources, such as those used in solarium;
- b) eye protectors intended for specific sports (e.g. ski goggles or other types);
- c) sunglasses that have been medically prescribed for attenuating solar radiation;
- d) products intended for direct observation of the sun, such as for viewing a partial or annular solar eclipse.

### 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 4007, *Personal protective equipment — Eye and face protection — Vocabulary*

ISO 8980-5, *Ophthalmic optics — Uncut finished spectacle lenses — Part 5: Minimum requirements for spectacle lens surfaces claimed to be abrasion-resistant*

ISO 12311:2013, *Personal protective equipment — Test methods for sunglasses and related equipment*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4007 and the following apply.

#### 3.1

##### **related eyewear**

eyewear intended for protection in the same wavelength range as solar radiation but not necessarily originated by natural sunlight

### 4 Construction and materials

#### 4.1 Construction

When tested in accordance with ISO 12311:2013, Clause 6, areas of the sunglass, including the frame and the edges of the filters, if in a rimless or semi-rimless style, that might, during intended use, come into contact with the wearer, shall be smooth and without sharp projections.