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**PERSONAL EYE-PROTECTION -
ULTRAVIOLET FILTERS - TRANSMITTANCE
REQUIREMENTS AND RECOMMENDED USE**

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English version

Personal eye-protection - Ultraviolet filters - Transmittance requirements and recommended use

Protection individuelle de l'oeil - Filtres pour l'ultraviolet -
Exigences relatives au facteur de transmission et utilisation
recommandée

Persönlicher Augenschutz - Ultraviolettschutzfilter -
Transmissionsanforderungen und empfohlene Anwendung

This European Standard was approved by CEN on 12 September 2002.

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 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 Management Centre 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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 170:2002) has been prepared by 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of an identical text or by endorsement, at the latest by April 2003, and conflicting national standards shall be withdrawn at the latest by April 2003.

This document supersedes EN 170:1992.

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(s).

For relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

In this European Standard, Annex A is normative and Annexes B and C are informative.

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, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

EN 170:2002 (E)

1 Scope

This European Standard specifies the scale numbers and transmittance requirements for filters for protection against ultraviolet radiation.

The other applicable requirements for these types of filters and the frames/mountings to which they are intended to be fitted are given in EN 166.

Guidance on the selection and use of these filters are given in annex B.

NOTE The protective filters specified in this standard are not suitable for the direct viewing of bright light sources like Xenon high-pressure arc lamps or for the direct or indirect observation of an electric welding arc. For this purpose a welding filter as specified in EN 169 and with a scale number appropriate to the source being observed should be used.

2 Normative references

This European Standard incorporates by dated or undated reference, 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 (including amendments).

EN 165:1995, *Personal eye-protection – Vocabulary*.

EN 166, *Personal eye-protection – Specifications*.

EN 167, *Personal eye-protection – Optical test methods*.

ISO/CIE 10526:1999, *CIE Standard illuminants for colorimetry*.

ISO/CIE 10527:1991, *CIE Standard colorimetric observers*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 165:1995 apply.

4 Designation and identification

The complete table of numbering of filters is given in EN 166.

The marking of oculars and frame is described in EN 166.

The scale number of ultraviolet filters comprises the code number 2 and the shade number corresponding to the filter, from 1,2 to 5 (see Table 1).

5 Requirements

5.1 General

The requirements of EN 166 apply to ultraviolet filters. Only those requirements that are different from or supplement the EN 166 specifications are given in this European standard.

5.2 Transmittance requirements

The definitions of transmittances are given in EN 165.

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