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## **Personal eye-protectors for welding and related techniques — Filters — Utilisation and transmittance requirements**

*Protecteurs individuels de l'œil pour le soudage et les techniques connexes — Filtres — Utilisation et spécifications de transmission*

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**Descriptors :** accident prevention, eyes, welding equipment, equipment specifications, optical filters, optical properties, selection.

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4850 was developed by Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, and was circulated to the member bodies in May 1977.

It has been approved by the member bodies of the following countries :

Australia	Iran	Romania
Austria	Ireland	South Africa, Rep. of
Belgium	Israel	Spain
Bulgaria	Italy	Switzerland
Denmark	Japan	Turkey
Egypt, Arab Rep. of	Mexico	United Kingdom
France	New Zealand	USSR
Germany, F. R.	Norway	Yugoslavia
Hungary	Poland	

No member body expressed disapproval of the document.

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# Personal eye-protectors for welding and related techniques – Filters – Utilisation and transmittance requirements

## 1 Scope and field of application

This International Standard specifies the numbering of, and transmittance requirements for filters intended to protect operatives performing manual work involving welding, braze-welding, arc gouging and thermal cutting. It also gives guidance on the selection and use of these filters.

Eye-protectors used with the above-mentioned techniques shall meet the general requirements given in ISO 4849. The latter also deals with general considerations relating to eye-protectors, such as identification.

Optical test methods for eye-protectors are the subject of ISO 4854.

Non-optical test methods for eye-protectors are the subject of ISO 4855.

## 2 References

ISO 4007, *Personal eye-protectors – Vocabulary.*

ISO 4849, *Personal eye-protectors – Specifications.*<sup>1)</sup>

ISO 4854, *Personal eye-protectors – Optical test methods.*<sup>1)</sup>

ISO 4855, *Personal eye-protectors – Non-optical test methods.*<sup>1)</sup>

## 3 Numbering of filters

The complete table of numbering of filters is given in clause 3 of ISO 4849.

The symbol for these filters includes only the class of protection corresponding to the filter, from 1.2 to 16 (see clause 4 below).

## 4 Transmittance requirements

### 4.1 General specification

The definitions of transmittance are given in ISO 4007.

The determination of transmittance is described in clause 5 of ISO 4854.

The transmittance variations measured by the scanning of a light beam of 5 mm diameter over the entire area of the filter, except in a marginal area 5 mm wide, shall remain within the limits defined as "relative uncertainty" in table 2 of ISO 4854.

<sup>1)</sup> At present at the stage of draft.