
British Standard Specification for

Eye-protectors for industrial and non-industrial uses

Protecteurs oculaires à usages industriels et non industriels — Spécifications

Schutzbrillen für gewerblichen und nichtgewerblichen Gebrauch

Foreword

This revision of this British Standard has been prepared under the direction of the Personal Safety Equipment Standards Committee. It supersedes BS 2092 : 1967 which is withdrawn. This British Standard was first issued in 1954 and revised in 1962 and in 1967. This revision incorporates amendments previously issued to the 1967 edition and takes account of changes in requirements and nomenclature, in particular a change from 'general purpose' to 'basic' eye-protector. The period since the publication of the first edition has seen considerable advances in the designs and materials available for use in eye-protectors. Although the standard was originally produced for industrial use, the eye-protectors specified are appropriate also for non-industrial uses, for example, do-it-yourself activities.

It is a specification setting out requirements for the complete eye protector and does not deal with the performance of components of eye protectors before they are assembled. Marking of the eye protector should therefore normally only be carried out by the final assembler.

In developing this British Standard the Technical Committee was conscious of the need to consider developments that are taking place within the corresponding European Standards Organization committee (CEN/TC 85). Existing British Standards on eye protection will be withdrawn when corresponding European Standards are approved and published. The definitions in this revision incorporate those agreed by CEN/TC 85.

Where there is a danger of radiation in addition to other industrial hazards, eye-protection should incorporate the additional protection required in accordance with the appropriate standard.

Within CEN/TC 85, European standards are being developed to cover eye-protection against the whole range of non-ionizing radiation as well as the hazards that are considered in this British Standard.

A British Standard giving recommendations for selection, care and maintenance of industrial eye protectors is in preparation.

Compliance with a British Standard does not of itself confer immunity from legal obligations. In particular attention is drawn to the fact that this British Standard is called up by a Certificate of the Chief Inspector of Factories for the purpose of compliance with the Protection of Eyes Regulation 1974 SI 1974 No. 1681, along with BS 679 and BS 1542, in Great Britain.

The requirements of these Regulations relate to specified processes in factories or notional factories and are made in furtherance of Section 65 of the Factories Act 1961. In the case of other operations and work situations, the general requirements of the Health and Safety at Work etc. Act, 1974 apply. Attention is also drawn to the following statutory requirements dealing with eye-protectors:

The Protection of Eyes (Amendment) Regulations 1975, SI No. 303.

The Patent Fuel Manufacture (Health & Welfare) Special Regulations 1946, SI No. 258.

The Cement Works Welfare Order 1930 SI No. 95.

Amendment No. 1
published and effective from 15 October 1993
to BS 2092 : 1987

Specification for eye-protectors for industrial
and non-industrial uses

Revised text

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Contents

At the end of the list of figures, insert the following:

'6 Example of a photoelectric reflectometer'

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Clause 3.2 Ignitability

In line 3, delete 'burn' and substitute 'glow'.

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Clause 5.2 Dimensions

Delete this clause entirely and substitute the following:

'5.2 Dimensions

The visible aperture of mounted oculars shall be such that a rectangle with minimum dimensions of 32 mm (horizontal length) and 25 mm (vertical depth) can be described in full for each eye (pupilar distance = 64 mm).'

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Clause 6.5.2 Ocular area (face screens)

In line 2, delete 'J.1.2' and substitute 'J.2.2'.

In line 2, delete 'in figure 2 when' and substitute 'in figure 2. When'.

In line 3, delete '6.4.1' and substitute '6.5.1'.

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Clause 6.8 Protection against gases

In line 5, delete 'N.3' and substitute 'N.4'.

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Clause B.3 Procedure

Delete the last sentence.

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Clause D.2 Apparatus

Delete this clause entirely and substitute the following:

'D.2 Apparatus

D.2.1 Telescope, with an aperture of nominally 20 mm and a magnification between $\times 10$ and $\times 30$, fitted with an adjustable eyepiece incorporating a reticular.

D.2.2 Illuminated target *, consisting of a black plate incorporating the cut-out pattern shown in figure 1, behind which is located a light source of adjustable luminance with a condenser, if necessary, to focus the magnified image of the light source on the telescope objective.

The large circle shown inside the bars has an internal diameter of 22.9 mm, with an annular aperture of 0.6 mm. The small circle has an internal diameter of 13.8 mm, with an annular aperture of 0.6 mm. The diameter of the central aperture is 0.6 mm. The tolerance for these dimensions is ± 0.1 mm in each case. The bars are approximately 20 mm long and 2 mm wide, with approximately 2 mm separation.

D.2.3 Filter, with its maximum transmittance in the green part of the spectrum, which may be used to reduce chromatic aberrations.

D.2.4 Six calibration lenses, with spherical refractive powers of ± 0.06 D, ± 0.12 D and ± 0.25 D respectively (with a tolerance of ± 0.01 D in each case).'

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Clause D.3 Calibration

Delete this clause entirely and substitute the following:

'D.3 Arrangement and calibration of apparatus

Align the telescope (D.2.1) and the illuminated target (D.2.2) on the same optical axis 4.58 ± 0.01 m apart. Focus the telescope on the target, adjusting the eyepiece to obtain a clear image of the cut-out pattern. Record the setting on the focussing scale as the zero point on that scale.

Calibrate the focussing adjustment of the telescope with the calibration lenses (D.2.4) so that a power of 0.01 D may be measured.'

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Clause F.1 Principle

In line 1, delete 'mounted on a head-form'.

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Clause F.2 Apparatus

Delete F.2.1 entirely.

Renumber F.2.2 as F.2.1.

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Clause F.3 Procedure

Delete this clause entirely and substitute the following:

F.3 Procedure

Place the eye-protector in the oven (F.2.1) for 30 ± 1 min. Ensure that the temperature within the oven is maintained at 55 ± 2 °C throughout this period. After this period remove the eye-protector and allow it to return to room temperature.

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Clause G.2.2

In paragraph 2, line 2, delete 'a' and substitute 'an approximately'.

In paragraph 2, line 9, delete '10 ms' and substitute '10 µs'.

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Clause J.2.2

In line 8, delete '66 mm' and substitute '64 mm'.

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Clause L.2.3

In line 3, delete 'at 66 mm centres' and substitute 'and with their centres 64 mm apart'.

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Clause L.3.1

In line 1, delete 'the lint (L.2.4)' and substitute 'the white blotting paper (L.2.3)'.

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Clause L.3.2

In line 2, insert '(L.2.4)' after 'lint'. Also in line 2, insert at the end of the line, before the full stop, 'prepared as in L.3.1'.

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Clause L.3.3

In line 2, delete ' ± 3 ' and substitute ' ± 5 '.

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Clause L.4 Test report

Delete the first sentence and substitute the following:

'Report whether or not staining has appeared within the two circles marked on the white blotting paper.'

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Clause M.2.3

In lines 5 to 6, delete 'at 66 mm horizontal centres' and substitute 'and with their centres 64 mm apart'.

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Clause M.2.6

Delete this clause entirely and substitute the following:

'M.2.6 Photoelectric reflectometer, incorporating a light source radiating energy within the visible range and a detector sensitive in the visible range only, with peak sensitivity in the green part of the spectrum. An example of a suitable arrangement is shown in figure 6.

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Clause M.3.1

In line 3, delete '66 mm' and substitute '64 mm'.

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Clause M.5 Test report

Delete 'change'.

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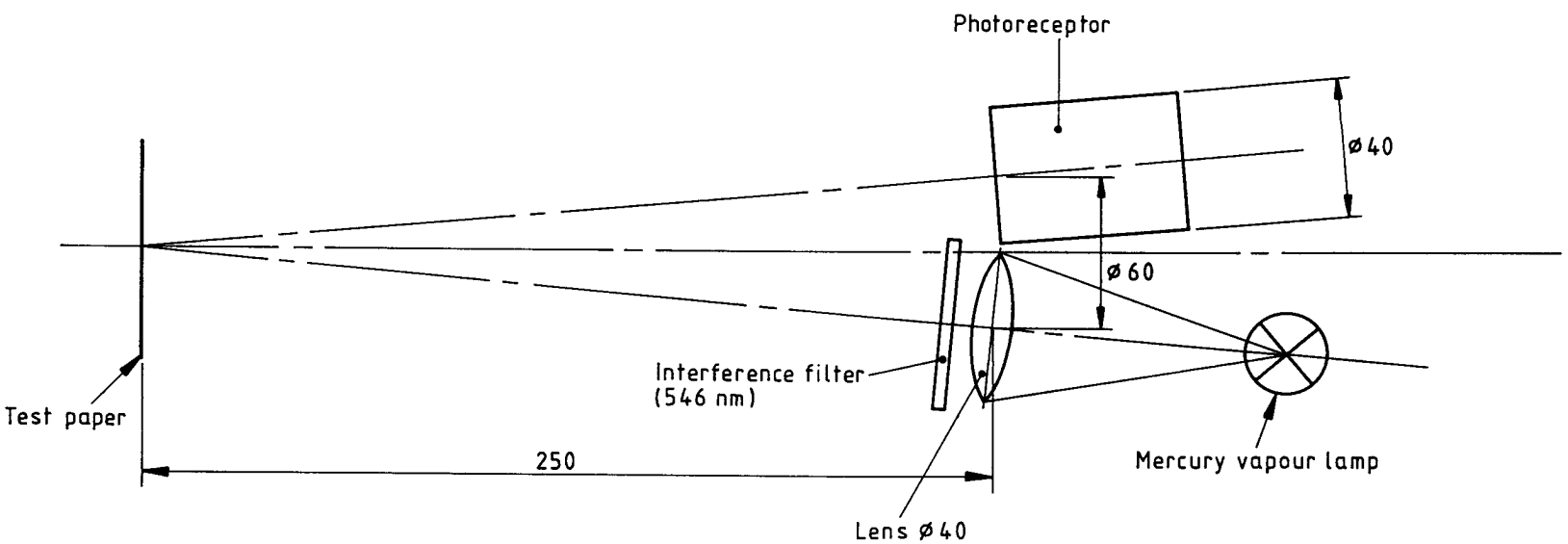
Clause N.2.4

In line 1, delete 'free from sulphur compounds,'.

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Publications referred to

Delete entirely the entry for BS 3199.



All dimensions are in millimetres unless shown otherwise.

Figure 6. Example of a photoelectric reflectometer