
Specification

Protective helmets for vehicle users

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Foreword

This British Standard specifies minimum requirements for protective helmets for motor cyclists and motor-car users.

The protection given by a helmet must depend on the circumstances of the accident, and wearing a helmet cannot always prevent death or long-term disability. A proportion of the energy of an impact is absorbed by the helmet, thereby reducing the force of the blow sustained by the head. The structure of the helmet may be damaged in absorbing this energy and any helmet that sustains a severe blow needs to be replaced even if damage is not apparent.

To achieve the performance of which it is capable and to ensure stability on the head, a helmet should be as closely fitting as possible consistent with comfort; in use it must be securely fastened, with the chin strap under tension at all times.

In this standard only one set of headforms is specified for use both in examining helmets for the extent of protection and in testing to the shock absorption requirements. A separate test block is used for the penetration test.

This standard is intended to replace BS 2001 'Protective helmets for motor cyclists' and BS 1869 'Protective helmets for racing motor cyclists' at such date as it is invoked by Regulations expected to be made by the Secretary of State for the Environment.

Certification. This British Standard provides for a product which covers personal safety. Manufacturers and purchasers are urged to make use of the certification facilities described on the inside back cover of this standard.



Amendment Slip No.1, published 30 September 1977
to BS 5361 : 1976

Protective helmets for vehicle users

NOTE. Certification to this standard, as altered by this amendment, will apply from the date on which this amendment is invoked by Regulations expected to be made by the Secretary of State for Transport. Until that time, certification will continue to apply to the standard as originally published, in its unaltered form.

Revised text

AMD 2331
September 1977

Clause 5.2 Shell

Delete the first paragraph and substitute the following:

'The outer surface of the shell corresponding to the area ACDEF (see clause 10) shall be in the form of a continuous convex curve of minimum radius 75 mm except where provision is made to recess an edge trim or a visor or its attachments (see 5.7). Such provision, together with any irregularities in the continuous convex curve outside the area ACDEF, shall be faired with external blend radii of not less than 4 mm, or the included angle between two adjacent surfaces shall be not less than 150°. The shell shall not include an integral peak, but may include an integral face cover.'

AMD 2331
September 1977

Clause 5.4 Retention

At the end of the clause insert the following new paragraph:

'Where a helmet is fitted with an auxiliary strap in addition to the chin strap, the chin strap shall be positively identified by information supplied to the user. (See clause 15.)'

AMD 2331
September 1977

New clause 5.7

Insert the following new clause:

'5.7 Helmet/visor assembly. Where a helmet shell is recessed to accept a visor, the helmet/visor assembly shall be supplied for inspection to ensure that, in those areas where the shell is recessed, the outer surface of the visor in the closed position is not more than 3 mm below the adjacent shell surface, measured normal to the surface of the visor.

Where a helmet is fitted with a visor, that visor shall comply with the requirements of BS 4110*.'

Insert the following related footnote at the bottom of the page:

*BS 4110 is under revision. The requirements referred to will be those of the revised version.'

AMD 2331
September 1977

Clause 15. Information to users (label)

Delete paragraph (b) and substitute the following:

'For helmets fitted with a single chin strap.

(b) The chin strap must pass under the chin and be securely fastened to maintain tension at all times of vehicular use; it is a legal requirement that this helmet is securely fastened to the head during such use.

On no account must a chin cup be used with this helmet.

For helmets fitted with a chin strap and an auxiliary strap.

(c) For maximum safety *both* straps must be fastened. The chin strap must pass under the chin and be securely fastened to maintain tension at all times of vehicular use; it is a legal requirement that this helmet is securely fastened to the head during such use.

On no account must a chin cup be used on the chin strap. (See 5.4.)'

Re-designate the remaining paragraphs (c) (d) (e) and (f) as (d) (e) (f) and (g) respectively.

2331
September 1977

Inside back cover

Standards publications referred to

Insert the following:

'BS 4110 Motorcyclists' eye-protectors'.



Amendment Slip No. 2, published 31 August 1978
to BS 5361 : 1976

Protective helmets for vehicle users

Revised text

AMD 2698
August 1978

Contents

Under 'Specification', in the entry for clause 15, insert '(labels)' at the end of the title.

Under 'Figures' insert the following new entry:
'7. Warning label'.

AMD 2698
August 1978

Clause 4.1

Delete the note entirely, and substitute the following new paragraph:

'Where hydrocarbons, cleaning fluids, paints, transfers or other extraneous additions are known to affect the shell material adversely, or where a thermoplastic material is used for the shell, a warning label shall be provided (see 15.2).'

AMD 2698
August 1978

Clause 13.1 Apparatus

After the second sentence insert the following:

'The strap shall be adjusted so that, prior to loading, the vertical distance from the headform reference line to the centre line of the rollers is 155 ± 5 mm.'

AMD 2698
August 1978

Clause 15. Information to users (label) (as amended by Amendment No.1)
In the existing clause heading delete 'label' and substitute 'labels'.

AMD 2698
August 1978

New clause 15.1

In paragraph 1, line 1, of the existing text of clause 15, before 'Every helmet' insert
'15.1 Information label.'

Gr 1

AMD 2698
August 1978

New clause 15.2

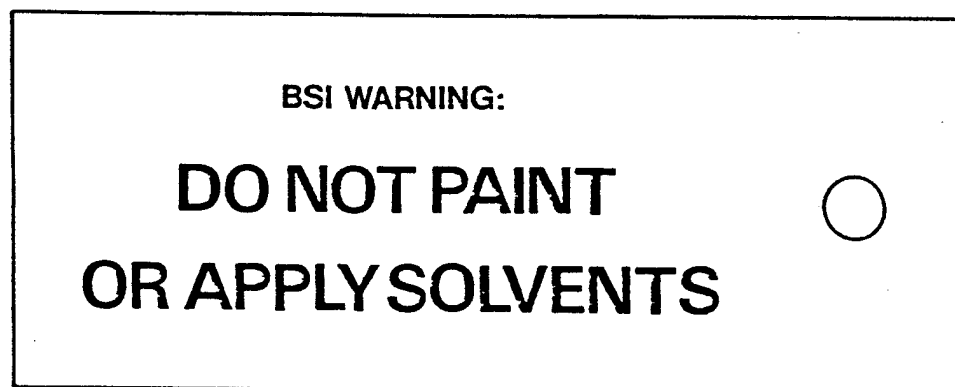
After 15.1 insert the following new subclause:

'15.2 Warning label. Every helmet having a shell made of a thermoplastic material shall bear a warning label, as detailed in Figure 7, attached to the chinstrap or to a suitable stud.'

AMD 2698
August 1978

New figure 7

After the existing figures insert the following new figure 7.



Size : 50 x 125 mm approx
Lettering : Red on white background
12 & 24 point bold
Printed one side only
Material : Stiff card
Figure 7. Warning Label



Amendment Slip No. 3
published 31 August 1979
effective from a date to be announced (see note)
to BS 5361 : 1976

Specification for protective helmets for vehicle users

NOTE. This amendment will become effective from the date of implementation of Regulations in which this amendment is invoked, expected to be made by the Minister for Transport.

Revised text

AMD 3194
August 1979

Contents

Insert the following at the end of the contents:

'Appendix

- A. Recommendation on minimum radii for thermoplastics materials'.

AMD 3194
August 1979

Clause 5.2 Shell (as amended by Amendment No. 1)

Delete this clause entirely and substitute the following:

'5.2 Shell

5.2.1 Area above the line ACDEF. Where the shell is of multi-part construction, there shall be no joins within the area above the line ACDEF (see figure 2).

The outer surface of the shell above the line ACDEF shall be in the form of a continuous convex curve of minimum radius 75 mm, except where provision is made to recess

- (a) an edge trim,
- (b) a visor and its attachments (see 5.7),
- (c) the retention system attachments.

Where the shell is recessed for (b) or (c) above, such recesses shall be faired with external blend radii of not less than 4 mm, or shall have included angles of not less than 150° between two adjacent surfaces. However, the requirements for recesses do not apply to countersunk or counter-bored holes that are subsequently fully filled by a rivet, screw, etc.

There shall be no apertures in the shell within the area above the line ACDEF except for purposes of attachment of the retention system, a visor, a goggle-retaining strap or a peak.

The shell shall not include an integral peak.

5.2.2 Area below the line ACDEF. Where the shell is of multi-part construction, the surfaces of adjacent parts shall be level to within 1 mm.

Where the outer surface of the shell departs from a continuous convex curve, other than a recess for an edge trim, the resulting irregularity shall be faired with external blend radii of not less than 4 mm, or shall have included angles of not less than 150° between two adjacent surfaces.

5.2.3 Edge. A design feature in the form of a protrusion intended to assist the retention of an edge trim shall not protrude more than 3.5 mm and shall be fully covered by the edge trim, when in position.

5.2.4 Minimum radii. A recommendation on minimum radii for thermoplastics materials is given in appendix A.'

