

Industrial bump caps

The European Standard EN 812:1997, with the incorporation of amendment A1:2001, has the status of a British Standard

ICS 13.340.20

National foreword

This British Standard is the English language version of BS EN 812:1997, including amendment A1:2001, published by the European Committee for Standardization (CEN). It supersedes BS 4033:1966 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted by Technical Committee PH/6, Head protection, to Subcommittee PH/6/1, Industrial safety helmets, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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English version

Industrial bump caps

(includes amendment A1:2001)

Casquettes anti-heurt pour l'industrie
(inclut l'amendement A1:2001)

Industrie-Anstoßkappe
(enthält Änderung A1:2001)

This European Standard was approved by CEN on 8 October 1997. Amendment A1 was approved by CEN on 4 November 2001.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 158, Head protection, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by April 1998, and conflicting national standards shall be withdrawn at the latest by April 1998.

This European Standard 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 standard.

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

Foreword to amendment A1

This amendment EN 812:1997/A1:2001 to the EN 812:1997 has been prepared by Technical Committee CEN/TC 158, Head protection, the Secretariat of which is held by BSI.

This amendment to the European Standard EN 812:1997 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

This amendment to the European Standard EN 812:1997 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).

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

Contents

	Page
Foreword	ii
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Physical requirements	4
5 Performance requirements	5
6 Test requirements	6
7 Marking and information	11
Annex A (informative) Recommendations for materials and construction	13
Annex B (informative) Artificial ageing	14
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives	15

1 Scope

This European Standard specifies physical and performance requirements, methods of test and marking requirements for industrial bump caps.

Industrial bump caps are intended to provide protection to the wearer against the effects of striking his head against hard, stationary objects with sufficient severity to cause laceration or other superficial injuries. They are not intended to provide protection against the effects of falling or thrown objects, or moving or suspended loads.

NOTE An industrial bump cap should not be confused with an industrial safety helmet, as specified in EN 397.

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.

EN 397, *Industrial safety helmets*.

EN 960, *Headforms for use in the testing of protective helmets*.

ISO 4892-1:1994, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance*.

ISO 4892-2:1994, *Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc sources*.

ISO 6487:1987, *Road vehicles — Measurement techniques in impact tests — Instrumentation*.

3 Definitions

For the purposes of this European standard the following definitions apply.

3.1

industrial bump cap

headgear, hereinafter referred to as a “bump cap”, intended to protect the wearer’s head against injury caused by striking the head against hard, stationary objects.

It may consist of the items defined in 3.2, 3.3, 3.4, 3.5 and 3.6

3.2

shell

the hard, smoothly finished material that may provide the general outer form of the bump cap.

It may be fitted with external coverings, which may provide a means of maintaining the bump cap on the head

3.3

harness

3.3.1

assembly

the complete assembly that may provide a means:

- a) of maintaining the bump cap in position on the head; and
- b) of absorbing kinetic energy during an impact

NOTE A harness may include the items defined in 3.3.2, 3.3.3, 3.3.4 and 3.3.5.

3.3.2

headband

the part of the harness, if fitted, completely or partly surrounding the head above the eyes at approximately the largest horizontal circumference of the head

NOTE The headband may include a nape strap.

3.3.3

nape strap

the adjustable or self-adjusting strap that fits behind the head below the plane of the headband

NOTE A nape strap may be an integral part of the headband, and may be elasticated.

3.3.4

cradle

the assembly of parts of the harness, if fitted, in contact with the head, excluding the headband and nape strap, if fitted

NOTE The cradle may be either fixed or adjustable.

3.3.5

comfort band or sweatband

an accessory to cover at least the inner front surface of the headband, if fitted, to improve wearer comfort

3.4

ventilation holes

holes provided in the shell, and/or external coverings, which may allow circulation of air inside the bump cap

3.5

chin strap

a strap which fits under the chin to help secure the bump cap on the head

3.6

chin strap anchorages

the means by which the material of the chin strap is attached to the bump cap. This includes, for example:

- a) the component(s) fitted to the ends of the chin strap material for this purpose;
- b) that part of the bump cap shell or of the headband where the chin strap is attached

3.7

bump cap accessories

any additional parts for special purposes such as chin strap, neck protector, nape strap, external coverings

3.8

wearing height

the vertical distance from the lower edge of the headband, if fitted, (or from the lower edge of the bump cap if there is no headband) to the highest point of the headform on which the bump cap is mounted, measured either at the front (midway between the sides of the headform) and at the side (midway between the front and back of the headform) whichever gives the greater distance

4 Physical requirements

4.1 Materials and construction

The bump cap may consist of a smooth shell, which may be enclosed by an outer covering. The bump cap shall incorporate means to absorb the energy of an impact.

NOTE Recommendations for materials and construction of bump caps are given in Annex A.

For those parts of the bump cap that come into contact with the skin, materials which are known to be likely to cause skin irritation or any adverse effect on health shall not be used.

There shall be no sharp edge, roughness or projection on any part of the bump cap which is in contact, or potential contact, with the wearer when the bump cap is worn, such as is likely to cause injury to the wearer.

Any part of the bump cap which can be adjusted, or removed by the wearer for the purpose of replacement, shall be so designed and manufactured as to facilitate adjustment, removal and attachment without the use of tools.

Any adjustment system incorporated within the bump cap shall be so designed and manufactured as not to become incorrectly adjusted without the wearer's knowledge under the foreseeable conditions of use.