

High performance industrial helmets

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NATIONAL FOREWORD

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English Version

High performance industrial helmets

Casques de protection à haute performance pour l'industrie

Hochleistungs-Industrieschutzhelme

This European Standard was approved by CEN on 17 December 2011 and includes Amendment 1 approved by CEN on 19 July 2012.

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Foreword

This document (EN 14052:2012+A1:2012) 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of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document includes Amendment 1 approved by CEN on 19 July 2012.

This document supersedes **EN 14052:2012**.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **EN 14052:2012** and **EN 14052:2012**.

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.

Annex C provides details of significant technical changes between this European Standard and the previous edition.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

Advances in materials and design methods have allowed helmets to be developed that have a higher performance than other types of general industrial helmets.

Helmets complying with European Standards offer a suite of head protection devices for general industrial use:

- the industrial bump cap meeting the requirements of EN 812,
- the industrial safety helmet meeting the requirements of EN 397, and
- the high performance industrial helmet meeting the requirements of EN 14052.

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 lacerations or other superficial injuries. They are not intended to provide protection against the effects of falling or thrown objects, or moving or suspended loads. In addition to the mandatory requirements the caps may have shock absorption properties at low temperatures, be flame resistant and have electrical properties.

Industrial safety helmets are intended primarily to provide protection to the wearer against falling objects and are not intended to provide protection against off crown impacts. The mandatory requirements for the helmets includes for them to have flame resistant properties. In addition to the mandatory requirements the helmets may have shock absorption properties at very low temperatures and very high temperatures, have electrical insulation properties, have lateral deformation properties, and provide protection against molten metal splash.

The high performance industrial helmet offers greater protection from falling objects, protection from off crown impacts and protection from penetration by a flat blade striker. It also includes a retention system that meets mandatory requirements for system release and system effectiveness properties. The helmet has the same flame resistant properties as the industrial safety helmet and offers the same optional protection against other risks with the exception of lateral deformation.

The technical committee, which has prepared this European Standard, realizes that mechanical rigidity is of importance for the wearer's safety. At the time, the standard was prepared no valid test method was recognized. For that reason, no requirements concerning mechanical rigidity have been introduced.

Designers are encouraged to accommodate ear, eye, and respiratory protection into the helmet design where required. When possible the design and performance of such additional protective functions should be in accordance with the relevant European Standard for these products. When this is not possible, the manufacturer will draw attention to any compromises by means of information supplied with the helmet.

The wearing of a helmet meeting the requirements of this European Standard will reduce, but not eliminate, the likelihood of head injury. There are limits to the amount of protection that can be provided. In the workplace, it remains the responsibility of the employer to judge the helmet's suitability for their particular purpose.

1 Scope

This European Standard specifies physical, performance, test and marking requirements for high performance industrial helmets.

High performance industrial helmets, as specified in this European Standard, are intended to provide to the wearer protection against falling objects and off crown impacts and the consequential brain injury, skull fracture and neck injury.

This European Standard includes mandatory requirements that apply to all high performance industrial helmets and additional, optional, performance requirements that apply only where specifically claimed by the helmet manufacturer.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 960:2006, *Headforms for use in the testing of protective helmets*

EN 13087-1, *Protective helmets — Test methods — Part 1: Conditions and conditioning*

EN 13087-2, *Protective helmets — Test methods — Part 2: Shock absorption*

EN 13087-3, *Protective helmets — Test methods — Part 3: Resistance to penetration*

EN 13087-5:2012, *Protective helmets — Test methods — Part 5: Retention system strength*

EN 13087-7, *Protective helmets — Test methods — Part 7: Flame resistance*

EN 13087-8, *Protective helmets — Test methods — Part 8: Electrical properties*

EN 13087-10, *Protective helmets — Test methods — Part 10: Resistance to radiant heat*

EN ISO 472, *Plastics — Vocabulary (ISO 472:1999)*

EN ISO 9185:2007, *Protective clothing — Assessment of resistance of materials to molten metal splash (ISO 9185:2007)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

high performance industrial helmet

head protector, hereinafter referred to as 'helmet', primarily intended to provide the wearer with protection against falling objects and of crown impacts

Note 1 to entry: The helmet may incorporate additional protective functions.

3.2

retention system

complete assembly by means of which the helmet is maintained in position on the head, including any devices for adjusting the system or enhancing the wearer's comfort