TÖÖSTUSLIKUD KAITSEKIIVRID

Industrial protective helmets

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 397:2025 sisaldab Euroopa standardi EN 397:2025 ingliskeelset teksti.	This Estonian standard EVS-EN 397:2025 consists of the English text of the European standard EN 397:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.04.2025.	Date of Availability of the European standard is 30.04.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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EUROPEAN STANDARD

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English Version

Industrial protective helmets

Casques de protection pour l'industrie

Industrieschutzhelme

This European Standard was approved by CEN on 14 March 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 397:2025) has been prepared by Technical Committee CEN/TC 158 “Head protection”, the secretariat of which is held by SIS.

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 October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

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

This document supersedes EN 397:2012+A1:2012.

In comparison with the previous version EN 397:2012+A1:2012 of edition EN 397:2012, the following technical modifications have been made:

— the Introduction has been revised and modernized;

— two types of helmets have been introduced; with protection against impacts on-crown (type 1) or on-crown and off-crown (type 2);

— measuring of drop speed has been defined for improved reproducibility;

— electrostatic and enhanced visibility requirements have been added;

— reference to EN 50365:2023, 4.3 for requirements on electrical insulation has been made.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

An industrial protective helmet is intended to be used in different work settings such as construction, mining, shipping, manufacturing, etc. With this in mind the accidents that occur can therefore be different depending on the workplace. Typical hazards include falling objects, slips, trips or falls of a person from the same level or one above and loss of control of machinery. The intention with this document is to reduce the potential injury to the head and risks associated with the hazards but will not eliminate them completely.

Manufacturers 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 protective helmet meeting the requirements of type 1 and type 2 in this document;

— the high performance industrial helmet meeting the requirements of EN 14052.

EN 812, *Industrial bump caps* is intended to provide protection to the wearer against the effects of striking their head against hard or stationary objects with sufficient severity to cause lacerations or other superficial injuries. They are not intended to provide protection against the effects of impacts on the crown area. In addition to the mandatory requirements the bump cap can have shock absorption properties at low temperatures, be ignition resistant and have electrical insulation properties.

In this document type 1 industrial protective helmets are intended to reduce the possible consequential effects of head injuries caused by impacts on the crown area. In this document type 2 industrial protective helmets are tested using higher impact energy to the crown and require some additional testing for impacts off-crown, front, rear, sides of the helmet. It also includes a retention system that meets requirements for chin strap strength and effectiveness. In addition to the requirements for the type 1 and type 2 helmets, this document includes requirements for special applications, for example low temperature, high temperature, electrical insulation, electrostatic and enhanced visibility properties.

EN 14052, *High performance industrial helmets* offers even 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 requirements for chin strap strength and effectiveness.

Angled and tangential (rotational) impacts are one of the causes of head injuries. At the time of developing this document, no rotational test method was available. Therefore, only linear impacts to a helmeted head in the shock absorption test have been addressed. CEN/TC 158 will in the near future present a new test method, which can be used in future revisions of this document.

The wearing of a helmet meeting the requirements in this document reduces, but not eliminates, the consequences of head injury. A proportion of the energy of an impact is absorbed by the helmet, thereby reducing the force of the blow sustained by the head.

There are limits to the amount of protection that can be provided and wearing a helmet cannot always prevent death or long term disability.

1 Scope

This document specifies requirements for design, performance, test methods and markings for industrial protective helmets. The requirements apply to helmets for general use in industry.

Additional performance requirements for special applications are included to apply only when specifically claimed by the helmet manufacturer.

Industrial protective helmets are intended to reduce the risk of head injuries caused by impacts and therefore can reduce consequential effects.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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 13087-1:2000[1], *Protective helmets — Test methods — Part 1: Conditions and conditioning*

EN 13087-2:2012, *Protective helmets — Test methods — Part 2: Shock absorption*

EN 13087-3:2000[2], *Protective helmets — Test methods — Part 3: Resistance to penetration*

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

EN 17353:2020, *Protective clothing — Enhanced visibility equipment for medium risk situations — Test methods and requirements*

EN 50365:2023, *Live Working — Electrically insulating helmets for use on low and medium voltage installations*

EN 60079-32-2:2015, *Explosive atmospheres — Part 32-2: Electrostatics hazards — Tests (IEC 60079-32-2:2015)*

EN ISO 472:2013[3], *Plastics — Vocabulary (ISO 472:1999)*

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

EN ISO/CIE 11664-2:2022, *Colorimetry — Part 2: CIE standard illuminants (ISO/CIE 11664-2:2022)*

[1] As impacted by EN 13087-1:2000/A1:2001.
[2] As impacted by EN 13087-3:2000/A1:2001.
[3] As impacted by EN ISO 472:2013/A1:2018.