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## **ISIKUKAITSEVAHENDID. KAITSEJALATSID**

**Personal protective equipment - Protective footwear  
(ISO 20346:2021 + ISO 20346:2021/Amd 1:2024)**

**EESTI STANDARDI EESSÕNA****NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 20346:2022+A1:2024 sisaldab Euroopa standardi EN ISO 20346:2022 ja selle muudatuse A1:2024 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 20346:2022+A1:2024 consists of the English text of the European standard EN ISO 20346:2022 and its amendment A1:2024.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.  Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 16.03.2022, muudatused A1 14.02.2024.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.  Date of Availability of the European standard is 16.03.2022, for A1 14.02.2024.
Muudatusega A1 lisatud või muudetud teksti algus ja lõpp on tekstis tähistatud sümbolitega $\boxed{A1}$ $\langle A1 \rangle$ .  Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The start and finish of text introduced or altered by amendment A1 is indicated in the text by tags $\boxed{A1}$ $\langle A1 \rangle$ .  The standard is available from the Estonian Centre for Standardisation and Accreditation.

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ICS 13.340.50

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EUROPEAN STANDARD

EN ISO 20346 + A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2022, February 2024

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## Personal protective equipment - Protective footwear (ISO 20346:2021 + ISO 20346:2021/Amd 1:2024)

Équipement de protection individuelle - Chaussures de protection (ISO 20346:2021 + ISO 20346:2021/Amd 1:2024)

Persönliche Schutzausrüstung - Schutzschuhe (ISO 20346:2021 + ISO 20346:2021/Amd 1:2024)

This European Standard was approved by CEN on 30 December 2021. Amendment A1 was approved by CEN on 3 September 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN ISO 20346:2022) has been prepared by Technical Committee ISO/TC 94 "Personal safety -- Personal protective equipment" in collaboration with Technical Committee CEN/TC 161 "Foot and leg protectors" 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 September 2022, and conflicting national standards shall be withdrawn at the latest by March 2023.

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 ISO 20346:2014.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

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## Endorsement notice

The text of ISO 20346:2021 has been approved by CEN as EN ISO 20346:2022 without any modification.

## **A1** Amendment A1 European foreword

This document (EN ISO 20346:2022/A1:2024) has been prepared by Technical Committee ISO/TC 94 "Personal safety -- Personal protective equipment" in collaboration with Technical Committee CEN/TC 161 "Foot and leg protectors" the secretariat of which is held by BSI.

This Amendment to the European Standard EN ISO 20346:2022 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2024, and conflicting national standards shall be withdrawn at the latest by August 2024.

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### **Endorsement notice**

The text of ISO 20346:2021/Amd 1:2024 has been approved by CEN as EN ISO 20346:2022/A1:2024 without any modification. **A1**

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<b>Contents</b>		Page
<b>Foreword</b> .....		<b>v</b>
<b>[A1] Amendment A1 foreword [A1]</b> .....		<b>vii</b>
<b>1 Scope</b> .....		<b>1</b>
<b>2 Normative references</b> .....		<b>1</b>
<b>3 Terms and definitions</b> .....		<b>1</b>
<b>4 Classification and designs</b> .....		<b>8</b>
<b>5 Basic requirements for protective footwear</b> .....		<b>9</b>
5.1 General .....		9
5.2 Design .....		11
5.2.1 General .....		11
5.2.2 Height of upper .....		12
5.2.3 Heel area .....		12
5.3 Whole footwear .....		13
5.3.1 Constructional performance .....		13
5.3.2 Toe protection .....		13
5.3.3 Leak proofness .....		15
5.3.4 Specific ergonomic features .....		15
5.3.5 Slip resistance .....		15
5.3.6 Innocuousness .....		15
5.3.7 Seam strength .....		15
5.4 Upper .....		16
5.4.1 General .....		16
5.4.2 Thickness .....		17
5.4.3 Tear strength .....		17
5.4.4 Tensile properties .....		17
5.4.5 Flexing resistance .....		18
5.4.6 Water vapour permeability and coefficient .....		18
5.4.7 Resistance to hydrolysis .....		18
5.5 Lining .....		18
5.5.1 General .....		18
5.5.2 Tear strength .....		18
5.5.3 Abrasion resistance .....		19
5.5.4 [A1] Water vapour permeability (WVP) and coefficient (WVC) [A1] .....		19
5.6 Tongue .....		19
5.6.1 General .....		19
5.6.2 Tear strength .....		19
5.7 Insole, insock and footbed .....		20
5.7.1 Thickness .....		20
5.7.2 Water permeability .....		20
5.7.3 Water absorption and desorption .....		20
5.7.4 Abrasion resistance .....		20
5.8 Outsole .....		20
5.8.1 General .....		20
5.8.2 Design .....		21
5.8.3 Tear strength .....		21
5.8.4 Abrasion resistance .....		21
5.8.5 Flexing resistance .....		22

5.8.6	Resistance to hydrolysis.....	22
5.8.7	Interlayer bond strength.....	22
<b>6</b>	<b>Additional requirements for protective footwear .....</b>	<b>22</b>
6.1	General .....	22
6.2	Whole footwear .....	24
6.2.1	Perforation resistance.....	24
6.2.2	Electrical properties .....	26
6.2.3	Resistance to inimical environments.....	26
6.2.4	Energy absorption of seat region .....	26
6.2.5	Water resistance.....	27
6.2.6	Metatarsal protection.....	27
6.2.7	Ankle protection.....	27
6.2.8	Cut resistance .....	28
6.2.9	<b>A1</b> Scuff cap <b>A1</b> .....	28
6.2.10	Slip resistance.....	28
6.3	Upper — Water penetration and absorption.....	29
6.4	Outsole.....	29
6.4.1	Resistance to hot contact.....	29
6.4.2	Resistance to fuel oil .....	29
6.4.3	Ladder grip .....	29
<b>7</b>	<b>Marking.....</b>	<b>29</b>
<b>8</b>	<b>Manufacturer’s instructions and information .....</b>	<b>30</b>
8.1	General .....	30
8.2	Electrical properties .....	31
	<b>A1</b> 8.2.1 General.....	31
	<b>A1</b> 8.2.2 <b>A1</b> Partially conductive footwear.....	31
	<b>A1</b> 8.2.3 <b>A1</b> Antistatic footwear .....	32
8.3	Insocks.....	32
8.4	Perforation resistance.....	33
8.5	Date of obsolescence .....	33
<b>Annex A (normative) Customized protective footwear (protective footwear adapted to fit an individual user or a single unit to fit an individual user) .....</b>		<b>34</b>
<b>Annex B (informative) Assessment of the footwear by the wearer.....</b>		<b>38</b>
<b>Annex C (informative) Slip resistance.....</b>		<b>40</b>
<b>Annex ZA (informative) Relationship between this European Standard and the essential requirements of PPE Regulation (EU) 2016/425 aimed to be covered .....</b>		<b>43</b>
<b>Bibliography .....</b>		<b>45</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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ISO 20346 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 161, *Foot and leg protectors*, in collaboration with ISO Technical Committee ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 3, *Foot protection*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 20346:2014), which has been technically revised. The main changes compared to the previous edition are as follows:

- revision of the terms and definitions Clause 3;
- Figures 1 to Figure 4 revised;
- Tables 1, 2 and 3 revised;
- heel area defined (5.2.3);
- toe protection, depending on ISO 22568 - 1 and ISO 22568 -2, exchanging EN 12568:2010;
- requirement on slip resistance revised (5.3.5 and 6.2.10); marking “SRA”, “SRB” and “SRC” deleted; marking “SR” and “Ø” introduced;
- pH value and chromium VI tests added in 5.3.6; former separate clauses under upper, lining, tongue and insole/insock deleted;
- requirement for seam strength of hybrid footwear added (5.3.7);
- requirement for upper materials not fulfilling WVP explained (5.4.6);

- abrasion of insoles revised (5.7.4);
- outsole requirements revised (5.8);
- outsole thickness revised (5.8.2.1);
- flexing resistance of outsole clarified (5.8.5);
- perforation resistant insert, depending on ISO 22568-3 and ISO 22568-4, exchanging EN 12568:2010;
- tolerance added (6.2.3.1);
- former Annex A Hybrid Footwear included in the general text (Table 2, 5.4.1.2);
- optional requirement of metatarsal protection revised (6.2.6);
- optional requirement on ankle protection clarified (6.2.7);
- optional requirement for “SC” scuff caps added (6.2.9);
- water penetration and absorption, symbol “WRU” deleted, symbol “WPA” introduced;
- optional requirement for “LG” Ladder grip of outsoles added (6.4.3);
- marking revised (Table 16 and Table 20);
- two new categories added, P6 and P7 (Table 20);
- information on obsolescence date added (8.5);
- Annex A with requirements for customized protective footwear added;
- Annex B assessment of the footwear by the wearer added;
- Annex C Slip resistance added;
- requirement for electrically insulating footwear (EN 50321) deleted.

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## **A1** Amendment A1 foreword

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This document was prepared by Technical Committee ISO/TC 94, *Personal Safety — Personal protective equipment*, Subcommittee SC 3, *Foot protection*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 161, *Foot and leg protectors*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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# Personal protective equipment — Protective footwear

## 1 Scope

This document specifies basic and additional (optional) requirements for protective footwear used for general purpose. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour. It also specifies requirements for protective footwear equipped with customized insoles, customized protective footwear or individual manufactured customized protective footwear. This standard does not cover the property of high visibility because of interaction with the clothing (e.g. trousers cover the footwear) and work area conditions (e.g. dirt, mud).

Special risks are covered by complementary job-related standards (e.g. footwear for firefighters, electrical insulating footwear, protection against chain saw injuries, protection against chemicals and molten metal splash, protection for motorcycle riders).

## 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.

The following referenced documents are indispensable for the application of this document.

ISO 20344:2021+Amd.1:2024 <sup>A1</sup>, *Personal protective equipment — Test methods for footwear*

ISO 22568-1:2019, *Foot and leg protectors — Requirements and test methods for footwear components — Part 1: Metallic toecaps*

ISO 22568-2:2019, *Foot and leg protectors — Requirements and test methods for footwear component — Part 2: Non-metallic toecaps*

EN 13832-3:2018, <sup>A1</sup> *Footwear protecting against chemicals — Part 3: Requirements for prolonged contact with chemicals* <sup>A1</sup>

## 3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

Note 1 to entry: The component parts of footwear are illustrated in Figure 1, 2 and 3.

Note 2 to entry: Further terms and definitions can be found in ISO 19952<sup>[1]</sup>.

### 3.1

#### protective footwear

footwear incorporating protective features to protect the wearer from injuries that could arise through accidents