



SLOVENSKI STANDARD SIST EN ISO 20345:2012

01-marec-2012

Nadomešča:

SIST EN ISO 20345:2004

SIST EN ISO 20345:2004/A1:2007

SIST EN ISO 20345:2004/AC:2007

Osebna varovalna oprema - Zaščitna obutev (ISO 20345:2011)

Personal protective equipment - Safety footwear (ISO 20345:2011)

Persönliche Schutzausrüstung - Sicherheitsschuhe (ISO 20345:2011)
iTeh STANDARD PREVIEW
(standards.iteh.ai)

Équipement de protection individuelle - Chaussures de sécurité (ISO 20345:2011)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

Ta slovenski standard je istoveten z: EN ISO 20345:2011

ICS:

13.340.50 Varovanje nog in stopal Leg and foot protection

SIST EN ISO 20345:2012 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 20345:2012](#)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

EUROPEAN STANDARD

EN ISO 20345

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2011

ICS 13.340.50

Supersedes EN ISO 20345:2004

English Version

Personal protective equipment - Safety footwear (ISO 20345:2011)

Équipement de protection individuelle - Chaussures de sécurité (ISO 20345:2011)

Persönliche Schutzausrüstung - Sicherheitsschuhe (ISO 20345:2011)

This European Standard was approved by CEN on 14 December 2011.

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.

CEN members are the national standards bodies of 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN ISO 20345:2012](https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....3

Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal Protective Equipment.....4

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 20345:2012](https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

Foreword

This document (EN ISO 20345:2011) has been prepared by Technical Committee CEN/TC 161 "Foot and leg protectors", the secretariat of which is held by BSI, in collaboration with Technical Committee ISO/TC 94 "Personal safety - Protective clothing and equipment".

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 June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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 supersedes EN ISO 20345:2004.

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.

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

[SIST EN ISO 20345:2012](https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

Annex ZA (informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 89/686/EEC Personal Protective Equipment

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 89/686/EEC Personal Protective Equipment.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding Essential Requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Clauses of this European Standard addressing Essential Requirements or other provisions of EU Directives

| Clauses of this European Standard | Essential requirements (ERs) of EU Directive 89/686/EEC Annex II |
|--|---|
| | 1. General requirements applicable to all PPE |
| 5.3.4 | 1.1.1 Ergonomics |
| 5.3.4 | 1.1.2.1 Highest level of protection possible |
| 5.3.2.2; 5.4.8; 5.8.5; 6.2.1.2; 6.2.1.3; 6.2.5; 6.3.1 | 1.2 Inocuousness of PPE 1.2.1 Absence of risks and other inherent nuisance factors |
| 5.4.7; 5.4.9; 5.5.4; 5.5.5; 5.6.2; 5.6.3; 5.7.2; 5.7.5 | 1.2.1.1 Suitable constituent materials |
| 5.3.4 | 1.2.1.2 Satisfactory surface condition of all PPE parts in contact with the user |
| 5.3.4 | 1.2.1.3 Maximum user impediment |
| | 1.3 Comfort and efficiency |
| 5.3.1.2; 5.3.2.5.1; 5.3.2.5.2; 5.4.3; 5.4.4; 5.4.5; 5.5.1; 5.5.2; 5.6.1; 5.7.4; 5.8.2; 5.8.3; 5.8.4; 5.8.6; 6.2.1.4; 6.2.1.5.1; 6.4.1; 6.4.2 | 1.3.2 Lightness and design strength |
| 8 | 1.4 Information supplied by the manufacturer |
| 5.4.6; 5.5.3 | 2.2 PPE enclosing the parts of the body to be protected |
| 6.2.2.1; 6.2.2.2 | 2.6 PPE for use in explosive atmospheres |
| 6.1; 7 | 2.12 PPE bearing one or more identification or recognition marks directly indirectly or relating to health and safety |
| | 3.1 Protection against mechanical impact |
| 5.3.2.3; 6.2.4; 6.2.6; 6.2.7 | 3.1.1 Impact caused by falling objects and collision of parts of the body with an obstacle |

Table ZA.1 (continued)

| Clauses of this European Standard | Essential requirements (ERs) of EU Directive 89/686/EEC Annex II |
|-----------------------------------|---|
| 5.3.5 | 3.1.2 Prevention of falls due to slipping |
| 5.3.2.4 | 3.2 Protection against (static) compression of part of the body |
| 6.2.1.1; 6.2.1.5.2; 6.2.8 | 3.3 Protection against physical injury (abrasion, perforation, cuts, bites) |
| 6.2.3.1 | 3.6 Protection against heat and/or fire |
| 6.2.3.2 | 3.7 Protection against cold |
| 6.2.2.3 | 3.8 Protection against electric shock |

WARNING — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 20345:2012](https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 20345:2012](#)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

INTERNATIONAL STANDARD

ISO
20345

Second edition
2011-12-15

Personal protective equipment — Safety footwear

Équipement de protection individuelle — Chaussures de sécurité

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 20345:2012](https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012)

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>



Reference number
ISO 20345:2011(E)

© ISO 2011

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 20345:2012

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

| | |
|--|-----------|
| Foreword | iv |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms and definitions | 1 |
| 4 Classification and designs | 6 |
| 5 Basic requirements for safety footwear | 8 |
| 5.1 General | 8 |
| 5.2 Design | 10 |
| 5.3 Whole footwear | 11 |
| 5.4 Upper | 14 |
| 5.5 Vamp and quarter lining | 16 |
| 5.6 Tongue | 17 |
| 5.7 Insole and insock | 17 |
| 5.8 Outsole | 18 |
| 6 Additional requirements for safety footwear | 19 |
| 6.1 General | 19 |
| 6.2 Whole footwear | 20 |
| 6.3 Upper — Water penetration and absorption | 24 |
| 6.4 Outsole | 24 |
| 7 Marking | 24 |
| 8 Information to be supplied | 25 |
| 8.1 General | 25 |
| 8.2 Electrical properties | 26 |
| 8.3 Insocks | 27 |
| Annex A (normative) Hybrid footwear | 28 |
| Bibliography | 30 |

ISO 20345:2011(E)

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 20345 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 161, *Foot and leg protectors*, in collaboration with 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 second edition cancels and replaces the first edition (ISO 20345:2004), which has been technically revised. It also incorporates the Amendment ISO 20345:2004/Amd. 1:2007 and the Technical Corrigenda ISO 20345:2004/Cor.1:2005 and ISO 20345:2004/Cor.2:2006.

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-85d0c0a6063d/sist-en-iso-20345-2012>

Personal protective equipment — Safety footwear

1 Scope

This International Standard specifies basic and additional (optional) requirements for safety footwear used for general purpose. It includes, for example, mechanical risks, slip resistance, thermal risks, ergonomic behaviour.

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 motor cycle riders).

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 17075, *Leather — Chemical tests — Determination of chromium(VI) content*

ISO 20344:2011, *Personal protective equipment — Test methods for footwear*

<https://standards.iteh.ai/catalog/standards/sist/277aacff-01e7-4bd4-8c46-8f307c6063/iso-20345-2011>

EN 12568:2010, *Foot and leg protectors — Requirements and test methods for toecaps and penetration resistant inserts*

EN 50321, *Electrically insulating footwear for working on low voltage installations*

3 Terms and definitions

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

NOTE The component parts of footwear are illustrated in Figures 1 and 2.

3.1

safety footwear

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

NOTE Items of safety footwear are fitted with toecaps designed to give protection against impact when tested at an energy level of at least 200 J and against compression when tested at a compression load of at least 15 kN.