



BSI Standards Publication

Personal protective equipment — Footwear protecting against risks in foundries and welding

Part 1: Requirements and test methods for protection against risks in foundries

This is a preview of "BS EN ISO 20349-1:20...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN ISO 20349-1:2017+A1:2020. It is identical to ISO 20349-1:2017, incorporating amendment 1:2020. It supersedes BS EN ISO 20349-1:2017, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by $\boxed{A1}$ $\langle A1 \rangle$.

The UK participation in its preparation was entrusted to Technical Committee PH/1, Safety, protective and occupational footwear.

A list of organizations represented on this committee can be obtained on request to its committee manager.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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31 May 2018	Implementation of CEN correction notice 7 February 2018: date of withdrawal corrected in European foreword
30 November 2020	Implementation of ISO amendment 1:2020 with CEN endorsement A1:2020

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English Version

**Personal protective equipment - Footwear protecting
against risks in foundries and welding - Part 1:
Requirements and test methods for protection against
risks in foundries (ISO 20349-1:2017)**

Équipement de protection individuelle - Chaussures de protection contre les risques dans les fonderies et lors d'opérations de soudage - Partie 1: Exigences et méthode d'essai pour la protection contre les risques dans les fonderies (ISO 20349-1:2017)

Persönliche Schutzausrüstung - Schuhe zum Schutz gegen Risiken in Gießereien und beim Schweißen - Teil 1: Anforderungen und Prüfverfahren zum Schutz gegen Risiken in Gießereien (ISO 20349-1:2017)

This European Standard was approved by CEN on 12 June 2017.

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

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European foreword

This document (EN ISO 20349-1:2017) 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 February 2018, and conflicting national standards shall be withdrawn at the latest by August 2019.

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 20349:2010.

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.

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

Endorsement notice

The text of ISO 20349-1:2017 has been approved by CEN as EN ISO 20349-1:2017 without any modification.

Foreword to amendment A1

This document (EN ISO 20349-1:2017/A1:2020) 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 20349-1:2017 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2021, and conflicting national standards shall be withdrawn at the latest by May 2021.

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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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Endorsement notice

The text of ISO 20349-1:2017/Amd 1:2020 has been approved by CEN as EN ISO 20349-1:2017/A1:2020 without any modification.

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Annex ZA (informative)

Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment aimed to be covered

This European Standard has been prepared under a Commission's standardization request to provide one voluntary means of conforming to essential requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment.

Once this standard is cited in the Official Journal of the European Union under that Regulation, 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 Regulation, and associated EFTA-regulations.

Table ZA.1 — Correspondence between this European Standard and Annex II of Regulation (EU) 2016/425

Essential Requirements of Regulation (EU) 2016/425	Clause(s)/sub-clause(s) of EN ISO 20349-1:2017	Remarks/Notes
1.1.1 Ergonomics	6, 7.1, 7.2	By reference to EN ISO 20345:2011
1.2.1.1 Innocuousness of PPE	6, 7.9	By reference to EN ISO 20345:2011
1.3.2 Lightness and strength	6, 7.3, 7.4, 7.5, 7.6, 7.7	By reference to EN ISO 20345:2011
1.4 Information supplied by the manufacturer	9, Annex A of EN ISO 20349-1: 2017	
2.4. PPE subject to ageing	9	
2.7 PPE intended for rapid intervention or to be put or removed rapidly	7.8	
2.12 PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety	8	
3.1.2.1 Prevention of falls due to slipping	6	By reference to EN ISO 20345:2011
3.2 Protection against static compression of a part of the body	6	By reference to EN ISO 20345:2011
3.3 Protection against mechanical injuries	6	By reference to EN ISO 20345:2011
3.6 Protection against heat and/or fire	7.3, 7.4, 7.5, 7.6	
3.6.1. PPE constituent materials and other components	7.3, 7.4, 7.5	No protection is foreseen for thermal effect of electrical arc
3.6.2. Complete PPE ready for use	7.4, 7.6, 9	Including information given in Annex A of EN ISO 20349-1:2017

WARNING 1 Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by the European Committee Standardization (CEN) Technical Committee CEN/TC 161, *Foot and leg protectors in equipment*, in collaboration with ISO Technical Committee 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 first edition of ISO 20349-1 cancels and replaces ISO 20349:2010, which has been technically revised.

A list of all parts in the ISO 20349 series can be found on the ISO website.

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Personal protective equipment — Footwear protecting against risks in foundries and welding —

Part 1: Requirements and test methods for protection against risks in foundries

WARNING — This document calls for the use of substances and/or procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

1 Scope

This document specifies requirements and test methods for footwear protecting users against risks, such as those encountered in foundries.

Footwear complying with this document also offers other protection as defined in ISO 20345.

NOTE Gaiters over boot and clothing intended to provide protection to the feet and legs against molten metal are addressed by ISO 11612.

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.

ISO 17227:2002, *Leather — Physical and mechanical tests — Determination of dry heat resistance of leather*

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

ISO 20345:2011, *Personal protective equipment — Safety footwear*

EN 702:1995, *Protective clothing — Protection against heat and flame — Test method — Determination of the contact heat transmission through protective clothing or its materials*

EN 12477, *Protective gloves for welders*

EN 15090:2012, *Foot wear for firefighters*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20345 apply.

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

— IEC Electropedia: available at <http://www.electropedia.org/>

— ISO Online browsing platform: available at <http://www.iso.org/obp>