



BSI Standards Publication

## Personal protective equipment – Footwear protecting against risks in foundries and welding

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Part 2: Requirements and test methods for protection against  
risks in welding and allied processes (ISO 20349-2:2017)

This is a preview of "BS EN ISO 20349-2:20...". [Click here to purchase the full version from the ANSI store.](#)

## National foreword

This British Standard is the UK implementation of EN ISO 20349-2:2017. It is identical to ISO 20349-2:2017. Together with BS EN ISO 20349-1:2017, it supersedes BS EN ISO 20349:2010, which is withdrawn.

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 secretary.

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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**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2017.

### Amendments/corrigenda issued since publication

Date	Text affected
31 May 2018	Implementation of CEN correction notices 27 September 2017 (Table ZA.1 corrected) and 07 February 2018 (date of withdrawal for conflicting national standards corrected)

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English Version

## Personal protective equipment - Footwear protecting against risks in foundries and welding - Part 2: Requirements and test methods for protection against risks in welding and allied processes (ISO 20349-2:2017)

Équipement de protection individuelle - Chaussures de protection contre les risques dans les fonderies et lors d'opérations de soudage - Partie 2: Exigences et méthodes d'essai pour la protection contre les risques lors d'opérations de soudage et techniques connexes (ISO 20349-2:2017)

Persönliche Schutzausrüstung - Schuhe zum Schutz gegen Risiken in Gießereien und beim Schweißen - Teil 2: Anforderungen und Prüfverfahren zum Schutz gegen Risiken beim Schweißen und verwandten Verfahren (ISO 20349-2:2017)

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

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, 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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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 20349-2:2017) has been prepared by Technical Committee ISO/TC 94 "Personal safety - Protective clothing and 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 March 2018 and conflicting national standards shall be withdrawn at the latest by September 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.

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, 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 20349-2:2017 has been approved by CEN as EN ISO 20349-2:2017 without any modification.

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## Annex ZA (informative)

### Clauses of this European Standard addressing essential requirements or other provisions of EU directives 89/686/EEC Personal Protective Equipment aimed to be covered

This This European Standard has been prepared under a Commission's standardization request M/031 Personal protective equipment to provide one voluntary 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 89/686/EEC, 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 89/686/EEC, and associated EFTA regulations.

**Table ZA.1 — Correspondence between this European Standard and EU Directive 89/686/EEC Personal Protective Equipment**

Essential Requirements of Directive 89/686/EEC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.1.1 Ergonomics	7.1	EN ISO 20345:2011, 5.3.4
1.2 Innocuousness of PPE	7.5	
1.4 Information supplied by the manufacturer	9	
2.2 PPE enclosing the parts of the body to be protected		EN ISO 20345:2011, 5.4.6, 5.5.3
2.4 PPE subject to ageing	7.3, 7.4	EN ISO 20345:2011, 5.3.2.5, 6.4.1, 6.2.3.1, 6.2.3.2 and 5.4.8
2.12 PPE bearing one or more identification or recognition marks directly or indirectly relating to health and safety	8	
3.1.1 Impact caused by falling or ejected objects and collisions of parts of the body with an obstacle.		EN ISO 20345: 5.3.2.3, 6.2.4, 6.2.6, 6.2.7, 6.4.1
3.1.2.1 Prevention of falls due to slipping		EN ISO 20345:2011, 5.3.5
3.2 Protection against (static) compression of part of the body		EN ISO 20345:2011, 5.3.2.4, 6.2.1 and 6.2.4
3.3 Protection against physical injury (abrasion, perforation, cuts, bites)		EN ISO 20345:2011, 6.2.1, 6.2.6, 6.2.7 and 6.2.8

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3.6 Protection against heat and/or fire	7.3, 7.4	EN ISO 20345:2011, 6.2.3.1 and 6.4.1
3.7 Protection against cold		EN ISO 20345:2011, 6.2.3.2
3.8 Protection against electric shock		EN ISO 20345:2011, 6.2.2.3

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.

This is a preview of "BS EN ISO 20349-2:20...". Click here to purchase the full version from the ANSI store.

## Contents

	Page
<b>Foreword</b> .....	<b>iv</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 Classifications of footwear</b> .....	<b>1</b>
<b>5 Sampling and conditioning</b> .....	<b>2</b>
<b>6 Requirements</b> .....	<b>2</b>
<b>7 Specific requirements</b> .....	<b>4</b>
7.1 Height of upper .....	4
7.2 Upper design .....	4
7.3 Small molten metal splash test .....	5
7.4 Burning behaviour .....	5
7.5 Innocuousness .....	5
<b>8 Marking</b> .....	<b>6</b>
<b>9 Information to be supplied by the manufacturer</b> .....	<b>6</b>
9.1 General .....	6
9.2 Information regarding perforation resistant insert .....	8
9.3 Electrical properties .....	8
9.3.1 Antistatic footwear .....	8
9.3.2 Electrically insulating footwear .....	8
9.4 Insocks .....	9
<b>Bibliography</b> .....	<b>10</b>

This is a preview of "BS EN ISO 20349-2:20...". Click here to purchase the full version from the ANSI store.

## 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)).

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](http://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](http://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 20349-2 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 2:

## Requirements and test methods for protection against risks in welding and allied processes

**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 welding and allied process.

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

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

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

EN 348, *Protective clothing — Determination of behaviour of materials on impact of small splashes of molten metal*

EN 15090:2012, *Foot wear for firefighters*

EN 50321:1999, *Electrical insulating foot wear for working on low voltage installations*

### 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>

### 4 Classifications of footwear

Footwear shall be class I or class II as defined in [Table 1](#).