



BSI Standards Publication

Foot and leg protectors - Requirements and test methods for footwear component

Part 2: Non-metallic toecaps

This is a preview of "BS EN ISO 22568-2:20...". [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN ISO 22568-2:2019. Together with BS EN ISO 22568-1:2019, BS EN ISO 22568-3:2019 and BS EN ISO 22568-4:2019, it supersedes BS EN 12568:2010, which is withdrawn.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.

© The British Standards Institution 2019
Published by BSI Standards Limited 2019

ISBN 978 0 580 96238 7

ICS 13.340.50

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 31 May 2019.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

EUROPÄISCHE NORM

April 2019

ICS 13.340.50

Supersedes EN 12568:2010

English Version

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

Protecteurs du pied et de la jambe - Exigences
et méthodes d'essais pour les composants
de chaussure - Partie 2: Embouts non
métalliques (ISO 22568-2:2019)

Fuß- und Beinschutz - Anforderungen und
Prüfverfahren für Schuhkomponenten - Teil 2:
Nichtmetallische Zehenkappen (ISO 22568-2:2019)

This European Standard was approved by CEN on 25 February 2019.

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



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "BS EN ISO 22568-2:20...". [Click here to purchase the full version from the ANSI store.](#)

European foreword

This document (EN ISO 22568-2:2019) 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 October 2019, and conflicting national standards shall be withdrawn at the latest by October 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 12568:2010.

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 22568-2:2019 has been approved by CEN as EN ISO 22568-2:2019 without any modification.

This is a preview of "BS EN ISO 22568-2:20...". Click here to purchase the full version from the ANSI store.

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Requirements for non-metallic toecaps	1
4.1 General.....	1
4.2 Finishing.....	2
4.3 Dimensions.....	2
4.3.1 Internal length.....	2
4.3.2 Width of flange.....	3
4.4 Impact resistance.....	3
4.5 Compression resistance.....	3
4.6 Stability against ageing and environmental influence.....	3
5 Test methods for non-metallic toecaps	3
5.1 General.....	3
5.2 Determination of dimensions.....	4
5.2.1 Determination of internal non-metallic toecap length.....	4
5.2.2 Width of flange.....	4
5.2.3 Test report.....	6
5.3 Determination of impact resistance.....	6
5.3.1 Apparatus.....	6
5.3.2 Procedure.....	9
5.3.3 Test report.....	9
5.4 Determination of compression resistance.....	10
5.4.1 Equipment.....	10
5.4.2 Procedure.....	11
5.4.3 Test report.....	11
5.5 Determination of impact resistance after environmental treatments.....	12
5.5.1 General.....	12
5.5.2 Effect of high temperature.....	12
5.5.3 Effect of low temperature.....	12
5.5.4 Effect of fuel oil.....	12
5.5.5 Test report.....	12
6 Marking	12
Bibliography	14

This is a preview of "BS EN ISO 22568-2:20...". 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).

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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 3, *Foot protection*.

A list of all parts in the ISO 22568 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

This is a preview of "BS EN ISO 22568-2:20...". [Click here to purchase the full version from the ANSI store.](#)

Introduction

ISO 20345, ISO 20346 and ISO 20347^[2] are related to safety, protective and occupational footwear which define the performance and required properties of the footwear. On introducing these standards all national standards relating to safety toecaps were withdrawn leaving the manufacturers of these items with no means of demonstrating the performance of their products. This document has been prepared to allow manufacturers to demonstrate the performance level of the toecaps before being inserted into the footwear.

Non-metallic toecaps complying with the requirements of this document are suitable components of "PPE footwear".

This is a preview of "BS EN ISO 22568-2:20...". [Click here to purchase the full version from the ANSI store.](#)

This is a preview of "BS EN ISO 22568-2:20...". Click here to purchase the full version from the ANSI store.

Foot and leg protectors - Requirements and test methods for footwear component —

Part 2: Non-metallic toecaps

1 Scope

This document specifies requirements and test methods for non-metallic toecaps, intended to function as components of PPE footwear (e.g. as described by ISO 20345 and ISO 20346).

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 20345, *Personal protective equipment — Safety footwear*

ISO 20346, *Personal protective equipment — Protective footwear*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20345, ISO 20346 and the following 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 <http://www.electropedia.org/>

3.1

internal non-metallic toecap

toecap produced from material other than metal and intended to be incorporated underneath the upper of footwear intended to provide protection against mechanical impact and compression

Note 1 to entry: External toecaps were used in the past, they are not used anymore and they are not covered by the present document.

4 Requirements for non-metallic toecaps

4.1 General

This document defines two types of non-metallic toecaps (type A and type B) to cover the various types of footwear constructions.