

SINGAPORE STANDARD

SS 513 : Part 1 : 2005

ISO 20345 : 2004

(ICS 13.340.50)

SPECIFICATION FOR

Personal protective equipment – Footwear

Part 1 : Safety footwear

(ISO title : Personal protective equipment – Safety footwear)

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National Foreword

This Singapore Standard was prepared by the Technical Committee on Personal Safety and Ergonomics under the purview of the General Engineering and Safety Standards Committee.

This standard, which comes in two parts, supersedes SS 105 : 1997 – ‘Safety footwear’. Part 1 specifies basic and additional (optional) requirements for safety footwear and Part 2 specifies methods for testing footwear designed as personal protective equipment.

This part of SS 513 is identical with ISO 20345 : 2004 – ‘Personal protective equipment – Safety footwear’. ISO 20345 was prepared by the European Committee for Standardization (CEN) 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).

Safety footwear purporting to comply with this standard shall be capable of meeting all the relevant requirements and tests specified in Annex A – ‘Batch testing of safety footwear’. The addition of Annex A does not alter the provisions of the International Standard.

For the purposes of this Singapore Standard, the CEN annex regarding fulfillment of European Council Directives has been removed.

Attention is also drawn to the following:

1. Where the references “EN ISO 20345” and “EN ISO 20344” appear, they should be interpreted as “SS 513 : Part 1” and “SS 513 : Part 2” respectively.
2. The reference to International/European Standards shall be replaced by the following Singapore Standards:

International/European Standard	Corresponding Singapore Standard
EN ISO 20345 : 2004	SS 513 : Part 1 : 2005 – Personal protective equipment – Footwear – Safety footwear
EN ISO 20344 : 2004	SS 513 : Part 2 : 2005 – Personal protective equipment – Footwear – Test methods for footwear

3. The comma has been used throughout as a decimal marker in ISO 20345, whereas in Singapore Standards it is a practice to use a full-point on the baseline as the decimal marker.

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

NOTE

1. *Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.*
2. *Compliance with a Singapore Standard does not exempt users from legal obligations.*

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) 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).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

This first edition of ISO 20345 cancels and replaces ISO 8782-2:1998, which has been technically revised.

For the purposes of this International Standard the CEN annex regarding fulfillment of European Council Directives has been removed.

Foreword

This document (EN ISO 20345:2004) 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 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

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).

In conjunction with EN ISO 20344: 2004, this standard supersedes EN 345:1992 and EN 345-2:1996.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Specification for personal protective equipment – Footwear : Part 1 : Safety footwear

1 Scope

This European Standard specifies basic and additional (optional) requirements for safety footwear.

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.

EN 12568:1998, *Foot and leg protectors – Requirements and test methods for toecaps and metal penetration resistant inserts*

EN ISO 20344:2004, *Personal protective equipment - Test methods for footwear (ISO 20344:2004)*

3 Terms and definitions

For the purposes of this European Standard, 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 which could arise through accidents, 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

3.2

leather

3.2.1

full grain leather

hide or skin tanned to be imputrescible having conserved the totality of its grain

3.2.2

corrected grain leather

hide or skin tanned to be imputrescible which has been subjected to mechanical buffing to modify its grain structure

3.2.3

leather split

flesh or middle part of a hide or skin tanned to be imputrescible obtained by splitting a thick leather