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Third edition
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Personal protective equipment — Safety footwear

Équipement de protection individuelle — Chaussures de sécurité



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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 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.

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 third edition cancels and replaces the second edition (ISO 20345:2011), which has been technically revised. The main changes compared to the previous edition are as follows:

- revision of the terms and definitions in [Clause 3](#);
- [Figure 1](#) to [Figure 4](#) revised;
- [Tables 1, 2](#) and [3](#) revised;
- heel area defined ([5.2.3](#));
- toe protection, depending on ISO 22568-1 and ISO 22568-2, exchanging EN 12568:2010;
- requirement on slip resistance revised ([5.3.5](#) and [6.2.10](#)); marking “SRA, SRB and SRC” deleted; marking “SR” and “Ø” introduced;
- pH value and chromium VI tests added in [5.3.6](#); former separate clauses under upper, lining, tongue and insole/insock deleted;
- requirement for seam strength of hybrid footwear added ([5.3.7](#));
- requirement for upper materials not fulfilling WVP explained ([5.4.6](#));
- abrasion of insoles revised ([5.7.4](#));
- outsole requirements revised ([5.8](#));
- outsole thickness revised ([5.8.2.1](#));

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- flexing resistance of outsole clarified ([5.8.5](#));
- perforation resistant insert, depending on ISO 22568-3 and ISO 22568-4, exchanging EN 12568:2010;
- tolerance added ([6.2.3.1](#));
- former [Annex A](#) Hybrid footwear included in the general text ([Table 2](#), [5.4.1.2](#));
- optional requirement of metatarsal protection revised ([6.2.6](#));
- optional requirement on ankle protection clarified ([6.2.7](#));
- optional requirement for “SC” scuff cap abrasion added ([6.2.9](#));
- water penetration and absorption, symbol “WRU” deleted, symbol “WPA” introduced;
- optional requirement for “LG” Ladder grip of outsoles added ([6.4.3](#));
- marking revised ([Table 16](#) and [Table 20](#));
- two new categories added, S6 and S7 ([Table 20](#));
- information on obsolescence date added ([8.5](#));
- [Annex A](#) with requirements for customized safety footwear added;
- [Annex B](#) added;
- [Annex C](#) added;
- requirement for electrically insulating footwear (EN 50321) deleted.

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.