

This is a preview of "ISO 20347:2021". Click here to purchase the full version from the ANSI store.

Third edition 2021-12

Personal protective equipment — Occupational footwear

'Equipement de protection individuelle - Chaussures de travail



Reference number ISO 20347:2021(E)

ISO 20347:2021(E)

This is a preview of "ISO 20347:2021". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org Published in Switzerland This is a preview of "ISO 20347:2021". Click here to purchase the full version from the ANSI store.

COI	Contents				
Fore	word			v	
1	Scop	e		1	
2	Normative references				
_					
3	Terms and definitions				
4	Class	7			
5	Basi		8		
	5.1		al		
	5.2		n		
		5.2.1	G 01101 01		
		5.2.2	- 0		
	5.3	5.2.3			
	5.3	5.3.1	e footwear		
		5.3.2			
		5.3.3	Specific ergonomic features		
		5.3.4			
		5.3.5	Innocuousness		
		5.3.6			
	5.4	Upper	ſ	12	
		5.4.1	General		
		5.4.2	Thickness		
		5.4.3	Tear strength		
		5.4.4	Tensile properties		
		5.4.5	Flexing resistance		
		5.4.6 5.4.7	Water vapour permeability and coefficientResistance to hydrolysis	14 15	
	5.5		g		
	5.5	5.5.1	General		
		5.5.2	Tear strength		
		5.5.3	Abrasion resistance		
		5.5.4	Water vapour permeability and coefficient		
	5.6	Tongu	le		
		$5.6.\bar{1}$	General	16	
		5.6.2	Tear strength		
	5.7		e, insock and footbed		
		5.7.1	Thickness		
		5.7.2	Water permeability		
		5.7.3	Water absorption and desorption		
	5.8	5.7.4	Abrasion resistancele		
	5.0	5.8.1	General		
		5.8.2	Design		
		5.8.3	Tear strength		
		5.8.4	Abrasion resistance		
		5.8.5	Flexing resistance		
		5.8.6	Resistance to hydrolysis		
		5.8.7	Interlayer bond strength		
6	Addi	tional r	requirements for occupational footwear	18	
	6.1	Gener	'al	18	
	6.2		e footwear		
			Perforation resistance		
			Electrical properties		

ISO 20347:2021(E)

This is a preview of "ISO 20347:2021". Click here to purchase the full version from the ANSI store.

		6.2.3 Resistance to inimical environments				
		6.2.4 Energy absorption of seat region				
		6.2.5 Water resistance	. 21			
		6.2.6 Ankle protection	. 22			
		6.2.7 Cut resistance				
		6.2.8 Scuff cap abrasion				
		6.2.9 Slip resistance				
	6.3	Upper — Water penetration and absorption				
	6.4	Outsole				
		6.4.1 Resistance to hot contact				
		6.4.2 Resistance to fuel oil				
		6.4.3 Ladder grip	. 23			
7	Marki	ng	.24			
8	Manu	acturer's instructions and information	.25			
	8.1	General				
	8.2	Electrical properties				
		8.2.1 Partially conductive footwear				
		8.2.2 Antistatic footwear				
	8.3	Insocks				
	8.4	Perforation resistance	.27			
	8.5	Date of obsolescence				
Annex	Annex A (normative) Customized occupational footwear (occupational footwear adapted to fit an individual user or a single unit to fit an individual user)					
Annex	Annex B (informative) Assessment of the footwear by the wearer					
Annex	Annex C (informative) Slip resistance					
Biblio	Bibliography					

This is a preview of "ISO 20347:2021". 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 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.

ISO 20347 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 20347:2012), 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;
- <u>Figure 1</u> to <u>Figure 4</u> revised;
- <u>Tables 1, 2</u> and <u>3</u> revised;
- heel area defined (5.2.3);
- requirement on slip resistance revised (5.3.4 and 6.2.9); marking "SRA, SRB and SRC" deleted; marking "SR" and "Ø" introduced;
- pH value and chromium VI tests added in <u>5.3.5</u>; former separate clauses under upper, lining, tongue and insole/insock deleted;
- requirement for seam strength of hybrid footwear added (5.3.6);
- 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);
- flexing resistance of outsole clarified (5.8.5);

ISO 20347:2021(E)

This is a preview of "ISO 20347:2021". Click here to purchase the full version from the ANSI store.

- perforation resistant insert, depending on ISO 22568-3 and ISO 22568-4 exchanging EN 12568:2010;
- tolerance added (<u>6.2.3.1</u>);
- former <u>Annex A</u> Hybrid Footwear included in the general text (<u>Table 2</u>, <u>5.4.1.2</u>);
- optional requirement on ankle protection clarified (6.2.6);
- optional requirement for "SC" scuff caps added (6.2.8);
- 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 14 and 18);
- two new categories added, 06 and 07 (Table 17);
- information on obsolenscence date added (8.5);
- Annex A with requirements for customized occupational footwear added;
- Annex B assessment of the footwear by the wearer added;
- Annex C Slip resistance 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.