
**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**

AMENDMENT 1

*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*

AMENDEMENT 1





COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

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

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.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 3, *Footwear protection*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 161, *Foot and leg protectors*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 20349 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.

STANDARDSISO.COM : Click to view the full PDF of ISO 20349-2:2017/Amd 1:2020

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

AMENDMENT 1

Clause 8

Add the following note at the end of list item g):

"NOTE For more information on protection against heat and flame, see Annex A."

New Annex A

Insert the following new Annex A.

Annex A **(informative)**

Heat protection

A.1 General

PPE designed to protect all or a part of the body against the effects of heat and/or fire should possess thermal resistance and mechanical strength appropriate to the foreseeable conditions of use.

This annex provides the reader with information on heat and flame resistance in relation to footwear for welders and allied processes. When specifying and selecting footwear, heat and flame resistance should be given a high priority.

In this context heat and flame resistance are specific terms referring to the real work condition for welding or allied processes to prevent such risks like of spontaneous ignition and heat flux in contact with hot surfaces or molten metal splashes.

Even though the number of accidents at welding or allied processes caused by contact with hot surfaces or molten metal splashes is negligible, the personal costs of these accidents, the resultant injuries may bring about great financial costs and have life-threatening consequences for humans.

Footwear for welders and allied processes alone cannot protect against all risks as found in this special work place. It should be worn always in conjunction with heat and flame-resistant PPE (clothing, gloves, hoods, aprons, gaiters) according to the risk assessment of the work place.

Welder boots do not provide protection against defective equipment or incorrect use of equipment. They are not suitable in cases where safety footwear should be worn in accordance with EN 50321.

It is important that heat- and flame-resistant footwear for welding or allied processes is in use at all times when there is a potential risk of heat or flame or metal splashes; comfortable and specific designed footwear will encourage this.

A.2 Explanation of heat and flame-resistant properties

A.2.1 General

The test conditions and performance requirements of this document are considered basic requirements for footwear for welding or allied processes. This footwear is used for short-term in environments with high temperatures or molten metal splashes. Often it is found that this footwear in combination with other suitable PPE can achieve a higher protection or longer remain time in hazardous environments.

A.2.2 Resistance to effects of molten metal splashes

During welding or allied processes many small metal splashes can occur, which may be very hot. If they get into the footwear, foot burns can occur. A footwear with at least ankle height upper and either trousers falling over them and made of flame-retardant material, aprons or at least gaiters should be worn at welding.

The footwear upper alone is resistant against at least 25 small molten metal splashes, before the temperature on the inside of the footwear increase by 40 °C. This property is marked with the symbol "WG".