
**Personal protective equipment —
Footwear protecting against risks in
foundries and welding —**

**Part 1:
Requirements and test methods for
protection against risks in foundries**

AMENDMENT 1

*Équipement de protection individuelle — Chaussures de protection
contre les risques dans les fonderies et lors d'opérations de soudage —*

*Partie 1: Exigences et méthode d'essai pour la protection contre les
risques dans les fonderies*

AMENDEMENT 1





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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

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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.

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Part 1:

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Clause 8

Add the following note after Figure 2 above the title:

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

New Annex B

Insert the following new Annex B.

Annex B **(informative)**

Heat and flame protection

B.1 General

PPE designed to protect all or a part of the body against the effects of heat and/or fire should possess thermal insulation capacity 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 foundries. 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 in foundries to prevent such risks like of spontaneous ignition and heat flux in contact with hot surfaces or molten metal.

Even though the number of accidents in foundries caused by contact with hot surfaces or molten metal 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 foundries alone cannot protect against all risks as found in foundries. 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.

Foundry 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 foundries is in use at all times when there is a potential risk of heat or flame; comfortable and specific designed footwear will encourage this.

B.2 Explanation of heat and flame resistant properties

B.2.1 General

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

B.2.2 Resistance to effects of molten metal

Slag can flow out in melting and casting operations. If they get into the shoes, severe foot burns can occur. When handling fire-liquid masses, foundry footwear with high upper and either trousers falling over them and made of flame-retardant material, aprons or at least gaiters should be worn.

The footwear alone is resistant against molten iron and/or aluminium, if it is marked with the following symbols:

Symbol Fe indicates the footwear complies using iron as test metal

Symbol Al indicates the footwear complies using aluminium as test metal