

STN	Ochranné odevy Posudzovanie odolnosti materiálov proti rozstrekom roztaveného kovu (ISO 9185: 2025)	STN EN ISO 9185 83 2743
------------	--	---

Protective clothing - Assessment of resistance of materials to molten metal splash (ISO 9185:2025)

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/26

Obsahuje: EN ISO 9185:2025, ISO 9185:2025

Oznámením tejto normy sa ruší

STN EN ISO 9185 (83 2743) z januára 2008

141564



Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2026

Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 9185

October 2025

ICS 13.340.10

Supersedes EN ISO 9185:2007

English Version

**Protective clothing - Assessment of resistance of materials
to molten metal splash (ISO 9185:2025)**

Habillement de protection - Évaluation de la résistance
des matériaux aux projections de métal fondu (ISO
9185:2025)

Schutzkleidung - Beurteilung des
Materialwiderstandes gegen flüssige Metallspritzer
(ISO 9185:2025)

This European Standard was approved by CEN on 27 September 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 9185:2025 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 9185:2025) has been prepared by Technical Committee ISO/TC 94 "Personal safety -- Personal protective equipment " in collaboration with Technical Committee CEN/TC 162 "Protective clothing including hand and arm protection and lifejackets" the secretariat of which is held by DIN.

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 April 2026, and conflicting national standards shall be withdrawn at the latest by April 2026.

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

This document supersedes EN ISO 9185:2007.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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

Endorsement notice

The text of ISO 9185:2025 has been approved by CEN as EN ISO 9185:2025 without any modification.



International Standard

ISO 9185

Protective clothing — Assessment of resistance of materials to molten metal splash

*Habillement de protection — Évaluation de la résistance aux
projections de métal fondu*

**Third edition
2025-09**

ISO 9185:2025(en)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

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

Contents		Page
Foreword.....		iv
Introduction.....		v
1	Scope.....	1
2	Normative references.....	1
3	Terms and definitions.....	1
4	Principle.....	1
5	Apparatus and materials.....	2
6	Conditioning.....	6
7	Preparation of test specimens.....	6
8	Operator safety.....	7
9	Procedure.....	7
9.1	Setting up the apparatus.....	7
9.2	Preparation of molten metal or cryolite.....	7
9.3	Attachment of test material to specimen holder.....	7
9.4	Pouring.....	7
9.4.1	Pouring of molten metal.....	7
9.4.2	Pouring of molten cryolite.....	7
9.4.3	Additional procedures.....	8
9.5	Examination.....	8
9.6	Determination of mass of metal poured.....	8
10	Testing procedures.....	8
10.1	Iterative testing procedure.....	8
10.2	Performance level-based testing procedure.....	8
11	Void tests.....	9
12	Test report.....	9
Annex A (normative) Test conditions for certain metals and for cryolite.....		10
Annex B (normative) Method of test for assessment of thermal characteristics of PVC sensor film.....		11
Annex C (informative) Assessment of ‘damage’ to the PVC sensor film.....		12
Bibliography.....		15

ISO 9185:2025(en)**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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 13, *Protective clothing*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 9185:2007), which has been technically revised.

The main changes are as follows:

- reference to the new PVC sensor film (footnote 1 in [5.2](#));
- addition of possible use of a metal support ([Figure 3](#), [5.10](#), [Clause 12](#) and [Annex A](#));
- addition of a performance level-based testing procedure ([10.2](#));
- addition of [Annex C](#), adjustments and updates in [Annexes A](#) and [B](#).

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.

ISO 9185:2025(en)

Introduction

This document introduces changes intended to improve reproducibility when using a new batch of PVC sensor film.

These changes are, principally:

- more precise definitions of damage to the PVC sensor film;
- better damage assessment criteria to determine results;
- introduction of a metal support located beneath the test specimen, for tests using all metals except aluminium and cryolite.

A new batch of PVC sensor film was produced and is shown by thorough inter-laboratory trials to behave comparably to the previous PVC sensor film. The new batch of PVC sensor film is now available by a new world-wide distributor, see footnote 1 in [5.2](#).

Protective clothing — Assessment of resistance of materials to molten metal splash

1 Scope

This document specifies a method for assessing the heat penetration resistance of materials intended for use in clothing to protect against large splashes of molten metal. It provides specific procedures for assessing the effects of splashes of molten aluminium, molten cryolite, molten copper, molten iron and molten mild steel.

The principle of the test method is applicable to a wider range of hot molten materials than those for which specific procedures are set out, provided that appropriate measures are applied to protect the test operator. It is important to note that good resistance of a material to a pure molten metal does not guarantee a good performance against any slag that can be present in a manufacturing process.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 683-1, *Heat-treatable steels, alloy steels and free-cutting steels — Part 1: Non-alloy steels for quenching and tempering*.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN