
**PPE ensembles for firefighters
undertaking specific rescue
activities —**

**Part 4:
Gloves**

AMENDMENT 1

*Équipements de protection personnelle pour pompiers entreprenant
des activités de sauvetage particulières —*

Partie 4: Gants

AMENDEMENT 1





COPYRIGHT PROTECTED DOCUMENT

© ISO 2023

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).

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 14, *Firefighters' personal equipment*.

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 18639-4:2018/Amd 1:2023

PPE ensembles for firefighters undertaking specific rescue activities —

Part 4: Gloves

AMENDMENT 1

Normative references

Add the following International Standard:

ISO 23388:2018, *Protective gloves against mechanical risks*

6.2. Table 1

The requirements for liquid penetration resistance (optional) were changed as follows:

Requirements	Road traffic crash (RTC)	Urban search and rescue (USAR)
Liquid penetration resistance (optional), see 6.9 ISO 13994:2005, Procedure C1	No penetration of any liquid for at least 1 h for the following liquids: 40 % sodium hydroxide at 20 °C; 36 % hydrochloric acid at 20 °C ; 37 % sulfuric acid at 20 °C; 100 % o-xylene at 20 °C	

6.4

Replace the text with the following:

"6.4 Flame resistance

The glove component assembly, when tested in accordance with ISO 15025 using the procedures for surface ignition, both after conditioning according to 5.3.2 and after pre-treatment according to 5.3.1 followed by 5.3.2, shall meet the following requirements.

- No specimen shall exhibit hole formation in any layer.
- No specimen shall produce flaming or molten debris.
- The mean value of after-flame time shall be ≤ 2 s.
- Any afterglow shall not spread from the carbonized area to the undamaged area after the cessation of flaming.

If suitably sized representative materials cannot be obtained, then the whole glove shall be used for testing.

The flame shall be contacted on the glove at the palm side, back side, and fingertips. If the glove assembly incorporates wristlet material, this material shall be tested separately, applying the flame to the outer surface of the wristlet material. If the glove assembly incorporates seams, specimens of component assembly containing seams shall be tested separately by applying the flame to the seam portion of the component assembly with the seam oriented vertically.

For testing fingertips, use the test method in ISO 15025, procedure A, surface ignition, with the following modifications:

- The gloves shall be mounted in a vertical position so that the longest finger of the glove hangs down lowest. See Figure 2.
- The burner is positioned below the glove so that it is in the plane normal to the palm of the hand and including the longest finger of the glove, plane A. Plane A is perpendicular to the plane of the palm of the glove, plane B.
- The burner is mounted at an angle of $30^\circ \pm 3^\circ$ to plane B, with the tip of the flame contacting the lowest point of the glove or finger.
- The vertical distance between the top of the burner and the lowest point of the glove or finger shall be $20 \text{ mm} \pm 2 \text{ mm}$.

Performance shall be determined using the worst performance from all areas of the glove that are tested.

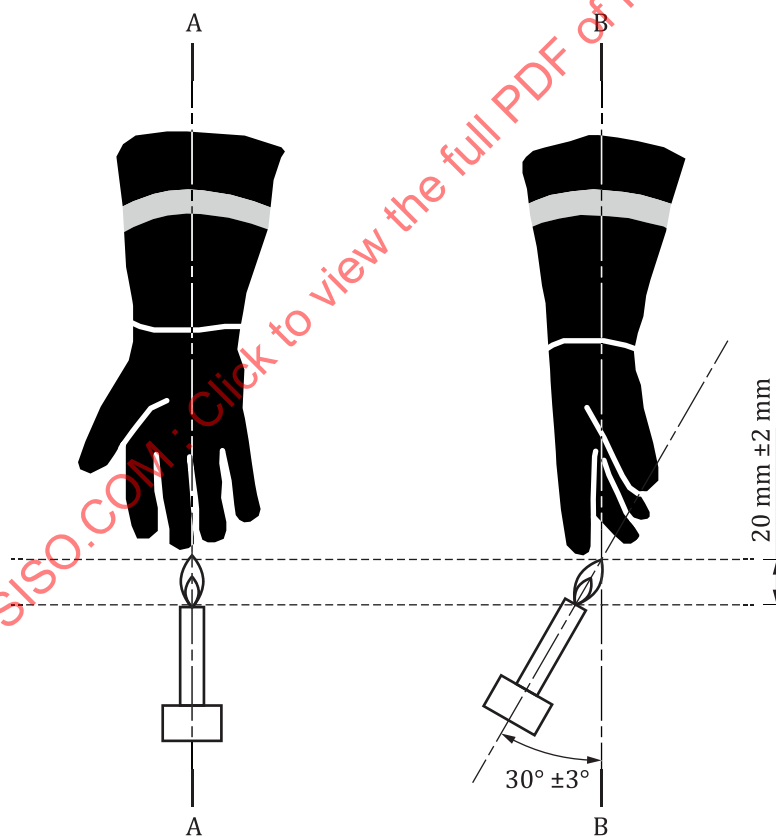


Figure 2 — Position of the glove relative to the burner for testing fingers"