

First edition
2008-08-15

AMENDMENT 1
2016-02-15

**Protective clothing — Test methods
for clothing providing protection
against chemicals —**

**Part 4:
Determination of resistance to
penetration by a spray of liquid
(spray test)**

AMENDMENT 1

*Vêtements de protection — Méthodes d'essai pour les vêtements
fournissant une protection contre les produits chimiques —*

*Partie 4: Détermination de la résistance à la pénétration par
vaporisation de liquide (essai au brouillard)*

AMENDEMENT 1



Reference number
ISO 17491-4:2008/Amd.1:2016(E)

© ISO 2016

STANDARDSISO.COM : Click to view the full PDF of ISO 17491-4:2008/Amd 1:2016



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, 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
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing* and by Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets* in collaboration.

Introduction

This amendment is intended to update 8.2 to allow better calibration of the test method and to ensure only SI-Units are used in this part of ISO 17491.

STANDARDSISO.COM : Click to view the full PDF of ISO 17491-4:2008/Amd 1:2016

Protective clothing — Test methods for clothing providing protection against chemicals —

Part 4:

Determination of resistance to penetration by a spray of liquid (spray test)

AMENDMENT 1

Subclause 8.1, 2nd paragraph, last sentence

Replace:

“Therefore, an opening valve, which opens at $(3^{+0,5}_{-0})$ bar, should be used.”

by:

“Therefore, an opening valve, which opens at (300^{+50}_{-0}) kPa, shall be used.”

Subclause 8.1, NOTE 2, 1st sentence

Replace:

“Minor adjustments to obtain the required output can be made by increasing or decreasing the pressure at each nozzle by a maximum of 0,2 bar.”

by:

“Minor adjustments to obtain the required output can be made by increasing or decreasing the pressure at each nozzle by a maximum of 20 kPa.”

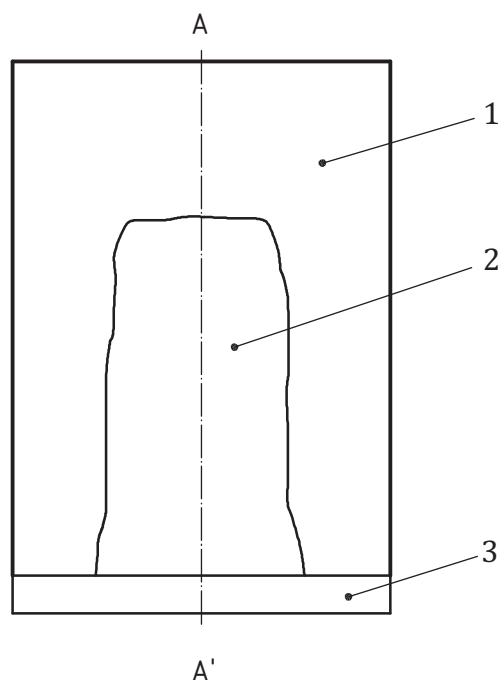
Subclause 8.2, Alignment of spray nozzles

Replace by:

The spray emission from nozzles shall be directed horizontally and perpendicular to the target sheet at a distance of $(1,5 \pm 0,1)$ m and produce a spray pattern that is symmetrical along a vertical line through the centre point of the turntable.

The correct alignment of the nozzles can be checked with a target sheet to confirm the spray pattern. This target sheet is water-absorbing with $1 \text{ m} \times 2,1 \text{ m}$ or more and is placed vertically at 90° to the nozzle outlet and at the centre point of the turntable. The spray should form a pattern of liquid on the target sheet, distributed symmetrically along a vertical line through the centre point of the turntable. (See [Figure 2](#).)

The difference between the centre line of the target sheet and the centre line of the spray pattern should be a maximum of 10 cm. If this is not the case, adjustment should be made.



Key

- 1 water-absorbing sheet
- 2 spray pattern on the target fabric
- 3 turntable
- AA' axis line through the centre of the turntable

Figure 2 — Checking the alignment of the nozzles (schematic representation)