
**Clothing for protection against heat
and flame — Determination of heat
transmission on exposure to both
flame and radiant heat**

*Vêtements de protection contre la chaleur et la flamme —
Détermination de la transmission de chaleur lors de l'exposition
simultanée à une flamme et à une source de chaleur radiante*

ITeH Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 17492:2019

<https://standards.iteh.ai/catalog/standards/iso/79b9e0c4-898c-46d2-86f8-db4b65bf5581/iso-17492-2019>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 17492:2019

<https://standards.iteh.ai/catalog/standards/iso/79b9e0c4-898c-46d2-86f8-db4b65bf5581/iso-17492-2019>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2019

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
Fax: +41 22 749 09 47
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	3
5 Apparatus	4
6 Precautions	8
7 Sampling	9
7.1 Specimen dimensions	9
7.2 Number of specimens	9
8 Conditioning and testing atmospheres	9
8.1 Conditioning atmosphere	9
8.2 Testing atmosphere	9
9 Test procedure	9
9.1 Initial set up and calibration procedures	9
9.1.1 Initial set up of the system and alignment of burner flames	9
9.1.2 Initial setting of the 50/50 mix of convective and radiant heat	9
9.1.3 Setting the radiant heat from the lamps	9
9.1.4 Setting the total exposure heat flux	10
9.2 Sensor care	10
9.2.1 Sensor care	10
9.2.2 Sensor inspection	10
9.2.3 Surface reconditioning	10
9.3 Specimen holder care	11
9.4 Computer processing of data	11
9.5 Test specimen mounting	12
9.5.1 Single layer specimens	12
9.5.2 Multilayer assembly specimens	12
9.6 Test specimen exposure when both TPI and HTI(DE) are measured	12
9.7 Test specimen exposure when only HTI(DE) is measured	13
10 Expression of results	13
10.1 Selection of analysis method	13
10.2 Thermal protection index analysis method	13
10.2.1 Time to onset of burn injury	13
10.2.2 Thermal protection index	13
10.3 HTI(DE) analysis method	14
10.4 Response to convective and radiant heat exposure	14
11 Interlaboratory test data	14
12 Test report	14
Annex A (informative) Availability of materials	15
Annex B (informative) Basis of sensor calibration	17
Annex C (informative) Interlaboratory test data	18
Bibliography	19

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 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*.

This second edition cancels and replaces the first edition (ISO 17492:2003), which has been technically revised. It also incorporates the Technical Corrigendum ISO 17492:2003/Cor.1:2004. The main changes compared with the previous edition are as follows:

- technical modifications and rewording have been made to all clauses, including to [Annexes A](#) and [B](#);
- [Clauses 5](#) to [12](#) have been renumbered;
- modifications have been made to [Figures 1, 2](#) and [3](#).

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.