
Reaction to fire tests for products — Non-combustibility test

Essais de réaction au feu de produits — Essai d'incombustibilité

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

ISO 1182:2020

<https://standards.itih.ai/catalog/standards/iso/55346f9c-7175-4946-9a99-5a04dc4c1701/iso-1182-2020>



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

ISO 1182:2020

<https://standards.iteh.ai/catalog/standards/iso/55346f9c-7175-4946-9a99-5a04dc4c1701/iso-1182-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

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 Apparatus	2
5 Test specimen	9
5.1 General.....	9
5.2 Preparation.....	9
5.3 Number.....	10
6 Conditioning	10
7 Test procedure	11
7.1 Test environment.....	11
7.2 Set-up procedure.....	11
7.2.1 Specimen holder.....	11
7.2.2 Thermocouple.....	11
7.2.3 Electricity supply.....	11
7.2.4 Furnace stabilization.....	12
7.3 Calibration procedure.....	12
7.3.1 Furnace wall temperature.....	12
7.3.2 Furnace temperature.....	14
7.3.3 Procedure frequency.....	16
7.4 Standard test procedure.....	16
7.5 Observations during test.....	17
8 Expression of results	17
8.1 Mass loss.....	17
8.2 Flaming.....	18
8.3 Temperature rise.....	18
9 Test report	18
Annex A (informative) Precision of test method	19
Annex B (informative) Typical designs of test apparatus	21
Annex C (normative) Thermocouples for additional measurements	24
Annex D (informative) Temperature recording	26
Bibliography	31

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 92, *Fire safety*, Subcommittee SC 1, *Fire initiation and growth*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 127, *Fire safety in buildings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This sixth edition cancels and replaces the fifth edition (ISO 1182:2010), which has been technically revised. The main changes compared to the previous edition are as follows:

- a second furnace thermocouple has been introduced in [Subclauses 4.4, 7.2.2, 7.2.4](#) and [8.3, Clause 9](#) and [Figure 2](#);
- the calibration procedure of the furnace wall temperature has been adjusted;
- [Formulae \(16\)](#) and [\(17\)](#) have been aligned with the values in Table 3;
- in [Clause 5](#), the range of uncertainty in size of specimen has been reduced;
- [Annex D](#) has been corrected.

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.

Introduction

This fire test has been developed for use by those responsible for the selection of construction products which, whilst not completely inert, produce only a very limited amount of heat and flame when exposed to temperatures of approximately 750 °C.

The limitation of the field of application to testing homogeneous products and substantial components of non-homogeneous products was introduced because of problems in defining specifications for the specimens. The design of the specimen of non-homogeneous products strongly influences the test results, which is the reason non-homogeneous products cannot be tested to this document.

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

[ISO 1182:2020](https://standards.itih.ai/catalog/standards/iso/55346f9c-7175-4946-9a99-5a04dc4c1701/iso-1182-2020)

<https://standards.itih.ai/catalog/standards/iso/55346f9c-7175-4946-9a99-5a04dc4c1701/iso-1182-2020>