
**Reaction to fire tests — Ignitability of
products subjected to direct impingement
of flame —**

**Part 2:
Single-flame source test**

*Essais de réaction au feu — Allumabilité de produits soumis à
l'incidence directe de la flamme —*

Partie 2: Essai à l'aide d'une source à flamme unique



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope.....	1
2 Normative references	1
3 Terms and definitions	2
4 Test apparatus	2
5 Test specimen.....	4
5.1 Preparation.....	4
5.2 Dimensions	4
5.3 Products which are not essentially flat.....	4
5.4 Number of specimens.....	4
5.5 Substrates	5
6 Conditioning	5
7 Test procedure.....	5
7.1 General	5
7.2 Preliminary operations.....	5
7.3 Testing operations	6
7.4 Duration of test.....	7
8 Expression of results	7
9 Test report.....	7
Annex A (informative) Precision of test method.....	23
Bibliography.....	26

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 11925-2 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 1, *Fire initiation and growth*.

This third edition cancels and replaces the second edition (ISO 11925-2:2002), which has been technically revised.

ISO 11925 consists of the following parts, under the general title *Reaction to fire tests — Ignitability of products subjected to direct impingement of flame*:

- *Part 1: Guidance on ignitability* [Technical Report]¹⁾
- *Part 2: Single-flame source test*
- *Part 3: Multi-source test*¹⁾

1) The main title of ISO 11925 has been changed since these parts were first published, originally referring to the ignitability of *building* products only. It is intended that these parts be aligned with the new main title at their next revision.

Introduction

This fire test method has been developed to define reaction to the fire performance of products. The method specifies a test for determining the ignitability of products by direct small-flame impingement under zero impressed irradiance using vertically oriented test specimens.

Although the method is designed to assess ignitability, this is addressed by measuring the spread of a small flame up the vertical surface of a specimen following application of a small (match-sized) flame to either the surface or edge of a specimen for either 15 s or 30 s. The determination of the production of flaming droplets depends on whether or not the filter paper placed beneath the specimen ignites.

This document is a preview generated by EVS

This document is a preview generated by EVS

Reaction to fire tests — Ignitability of products subjected to direct impingement of flame —

Part 2: Single-flame source test

WARNING — The attention of all persons concerned with managing and carrying out this test is drawn to the fact that fire testing can be hazardous and that there is a possibility that toxic and/or harmful smoke and gases can be evolved during the test. Operational hazards can also arise during the testing of specimens and the disposal of test residues.

An assessment of all potential hazards and risks to health should be made and safety precautions identified and provided. Written safety instructions should be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

Adequate means of extinguishing the specimen should be provided, bearing in mind that some specimens can produce severe flaming during the test. A hand water spray or an inert gas suppression system, e.g. compressed nitrogen, which can be directed to the burning area, should be available together with other means, such as fire extinguishers.

In some cases, smouldering can be difficult to extinguish completely and immersion in water can be necessary.

1 Scope

This part of ISO 11925 specifies a method of test for determining the ignitability of products by direct small flame impingement under zero impressed irradiance using vertically oriented test specimens.

Information on the precision of the test method is given in Annex A.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 13238, *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*

ISO 13943, *Fire safety — Vocabulary*

ISO 14697, *Reaction-to-fire tests — Guidance on the choice of substrates for building and transport products*