



International
Standard

ISO 9239-1

**Reaction to fire tests for floorings —
Part 1:
Determination of the burning
behaviour using a radiant heat source**

Essais de réaction au feu des revêtements de sol —

*Partie 1: Détermination du comportement au feu à l'aide d'une
source de chaleur rayonnante*

**Fourth edition
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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Principle	3
5 Apparatus	3
5.1 General	3
5.2 Test chamber	3
5.3 Specimen holder	3
5.4 Sliding platform	3
5.5 Steel scale	4
5.6 Gas-fired radiant panel	4
5.7 Pilot burner	4
5.8 Exhaust system	4
5.9 Anemometer	4
5.10 Radiation pyrometer	4
5.11 Thermocouples	5
5.12 Heat flux meter	5
5.13 Dummy specimen	5
5.14 Recording equipment	5
5.15 Timing device	5
5.16 Smoke measurements	5
6 Test specimens	5
6.1 General and number	5
6.2 Substrates	6
6.3 Adhesives	6
6.4 Underlay	6
6.5 Tiles	6
6.6 Loose laid flooring	6
6.7 Washing and cleaning	6
6.8 Formal test	6
7 Conditioning	7
8 Test procedure	7
8.1 Calibration procedure	7
8.2 Standard test procedure	8
9 Expression of results	9
10 Test report	9
Annex A (normative) Smoke measurement	20
Annex B (informative) Precision of test method	23
Annex C (normative) Gas and air supplies	24
Annex D (informative) Template report format for this document	25
Bibliography	30

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 document 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).

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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 fourth edition cancels and replaces the third edition (ISO 9239-1:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- change in definition of HF-E/CHF ([3.2](#), [3.3](#), [3.4](#))
- change in definition of tiles (size) ([3.11](#))
- adding information about generic adhesives ([6.3](#))
- defining securing method for edges of tiles ([6.5](#))
- securing of loose laid flooring ([6.6](#))
- calculation is now made from HF-E and/or HF-30 values ([8.2.6](#))
- reporting of values in the HF-E and/or HF-30 values, and calculate mean CHF from these ([9.2](#))
- adding of explanation of what to do if sample re-ignites after extinguishment ([9.3](#))
- adding references to LED light sources ([A.3.2.](#))
- adding of [Annex D](#) “Example of report template”

A list of all parts in the ISO 9239 series can be found on the ISO website.

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

The measurements in the test method in this document provide a basis for estimating one aspect of fire exposure behaviour of floorings. The imposed radiant flux simulates the thermal radiation levels likely to impinge on the floor of a corridor whose upper surfaces are heated by flames or hot gases or both, during the early stages of a developing fire in an adjacent room or compartment under wind-opposed flame-spread conditions.

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