

Fire resistance tests for non-loadbearing elements —

Part 2: Ceilings

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British Standard

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National foreword

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The UK participation in its preparation was entrusted by Technical Committee FSH/22, Fire resistance tests, to Subcommittee FSH/22/7, Test procedures for partitions and walls, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 18, an inside back cover and a back cover.

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English version

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Essais de résistance au feu des éléments non porteurs –
Partie 2: Plafonds

Feuerwiderstandsprüfungen für nichttragende Bauteile –
Teil 2: Unterdecken

This European Standard was approved by CEN on 18 February 1999.

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 127 "Fire safety in buildings", the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2001, and conflicting national standards shall be withdrawn at the latest by March 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the Construction Products Directive.

EN 1364 'Fire resistance tests for non-loadbearing elements' consists of the following

Part 1: Walls

Part 2: Ceilings

Part 3: Curtain walls - full configuration (in course of preparation)

Part 4: Curtain walls - part configuration (in course of preparation)

Introduction

Testing of ceilings is carried out in two modes:

- a) with fire from below the ceiling, with no cavity above, or
- b) with fire from above the ceiling where the fire is contained in a closed cavity.

Caution

The attention of all persons concerned with managing and carrying out this fire resistance test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Mechanical and operational hazards may also arise during the construction of the test elements or structures, their testing and disposal of test residues.

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

Safety note: Monitoring for integrity by the cotton pad or other means and insulation by use of the roving thermocouple from above a test specimen (in the case of fire from below) or within a void beneath a fire test specimen (in the case of fire from above) can be hazardous unless the risks associated with these practices are considered and appropriate precautions taken to protect operators from radiation, smoke, hot gases and from contact with furnace flame.

Operators shall not reach over the test specimen (in the case of fire from below) or enter the void beneath a test specimen (in the case of fire from above) to carry out inspection tests of any type during the test.

1 Scope

This part of EN1364 specifies a method for determining the fire resistance of ceilings, which in themselves possess fire resistance independent of any building element above them. This standard is used in conjunction with EN 1363-1.

The method is applicable to ceilings, which are either suspended by hangers or fixed directly to a supporting frame or construction, and to self supporting ceilings.

Within this test method, the ceiling is exposed to fire, with the exposure being applied either:

- a) from below the ceiling, or
- b) from above the ceiling to simulate fire within the cavity above the ceiling.

The contribution to fire resistance which a suspended ceiling may provide as a protective membrane to loadbearing elements is determined using a procedure which will be given in an ENV in preparation.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 1363-1	Fire resistance tests Part 1: General requirements
EN 1363-2	Fire resistance tests Part 2: Alternative and additional procedures
prEN ISO 13943	Fire safety - Vocabulary (ISO/DIS 13943:1998)

3 Definitions

For the purposes of this Part of EN 1364 the definitions given in EN 1363-1 and prEN ISO 13943, together with the following, apply:

3.1 ceiling: A non-loadbearing element of a building construction designed to provide horizontal fire separation.

3.2 self-supporting ceiling: A ceiling with a span from wall to wall, without any additional suspension devices.