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Fire resistance for tests for non-loadbearing elements - Part 2: Ceilings

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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English Version

Fire resistance for tests for non-loadbearing elements - Part 2: Ceilings

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 8 October 2017.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 1364-2:2018) 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of an identical text or by endorsement, at the latest by July 2018, and conflicting national standards shall be withdrawn at the latest by July 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1364-2:1999.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

The main changes with respect to the previous edition are listed below:

a) locations of thermocouples are modified in line with the definitions in EN 1363-1;

b) a more precise definition of the test specimen;

c) more precise rules in the field of direct application.

EN 1364 ‘Fire resistance tests for non-loadbearing elements’ consists of the following:

— *Part 1: Walls*

— *Part 2: Ceilings*

— *Part 3: Curtain walling – full configuration*

— *Part 4: Curtain walling – part configuration*

— *Part 5: Air transfer grilles*

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This European Standard has been prepared to provide a method of test for assessing the fire resistance of non-loadbearing ceilings. It is applicable to self-supporting ceilings as well as suspended ceilings, with either fire from below of from above.

This European Standard is not applicable to loadbearing systems. The fire resistance of loadbearing floors in conjunction with a suspended ceiling should be assessed by using EN 1365-2.

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 should be made and safety precautions should be 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.

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 should 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 EN 1364 specifies a method for determining the fire resistance of ceilings, which in themselves possess fire resistance independent of any building element above them. This European 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 might provide as a protective membrane to loadbearing elements is determined using the procedure given in EN 13381-1. The fire resistance of loadbearing floors in conjunction with a suspended ceiling can also be assessed by using tests according to EN 1365-2.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1363-1:2012, *Fire resistance tests - Part 1: General Requirements*

EN 1363-2, *Fire resistance tests - Part 2: Alternative and additional procedures*

EN ISO 13943, *Fire safety - Vocabulary (ISO 13943)*