



DPC: 25/30488144 DC

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Date: 05 June 2025

Origin: European

Latest date for receipt of comments: 29 July 2025

Project No. 2024/00602

Responsible committee: FSH/22/-/7 Non loadbearing separating elements

Interested committees:

Title: Draft BS EN 1364-5 BS Fire resistance tests for non-loadbearing elements. Part 5: Air transfer grilles.

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Full document details: 25/30488144 DC

Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Fire resistance tests for non-loadbearing elements - Part 5: Air transfer grilles

Essais de résistance au feu des éléments non porteurs -
Partie 5 : Grilles de transfert

Feuerwiderstandsprüfungen für nichttragende
Bauteile - Teil 5: Lüftungsbausteine

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 127.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Contents

Page

European foreword	4
Introduction	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 Test equipment.....	7
5 Test conditions	7
5.1 Heating conditions	7
5.2 Pressure conditions	7
6 Test specimen	8
6.1 General.....	8
6.2 Size	8
6.3 Number	8
6.4 Design.....	9
6.5 Construction	9
6.6 Verification.....	9
7 Installation of test specimen.....	9
7.1 General.....	9
7.2 Supporting constructions	9
8 Conditioning	10
9 Application of instrumentation	10
9.1 Thermocouples.....	10
9.2 Pressure	12
9.3 Radiation.....	12
9.4 Other equipment.....	12
10 Test procedure.....	12
11 Performance criteria	12
11.1 General.....	12
11.2 Integrity.....	12
11.3 Insulation.....	13
12 Test report.....	13
13 Direct field of application of test results	15
13.1 General.....	15
13.2 Orientation	15
13.3 Position.....	15
13.4 Number	16
13.5 Supporting construction	16
14 Figures	17
Annex A (normative) Test configuration for immediate heat exposure.....	24
A.1 Use of this annex	24

A.2	Principle of removable shield configuration	24
A.3	Removable shield	24
A.4	Test procedure amendments for this test configuration	24
	Bibliography	27

European foreword

This document (prEN 1364-5:2025) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

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

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

- *Part 1: Walls*
- *Part 2: Ceilings*
- *Part 3: Curtain walling - Full configuration (complete assembly)*
- *Part 4: Curtain walling - Part configuration*
- *Part 5: Air transfer grilles*
- *Part 6: Cavity Barriers*

Introduction

The purpose of this test is to measure the ability of a representative specimen of an air transfer grille to resist the spread of fire from one side to another.

A representative sample of the air transfer grille is exposed to a specified regime of heating and the performance of the test specimen is monitored on the basis of criteria given in this document. Fire resistance of the test specimen is expressed as the time for which the appropriate criteria have been satisfied. The times so obtained are a measure of the adequacy of the construction in a fire but have no direct relationship with the duration of a real fire.

CAUTION - The attention of all persons concerned with managing and carrying out this furnace testing 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. Mechanical and operational hazards can 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 needs to be made and safety precautions need to be identified and provided. Written safety instructions need to be issued. Appropriate training needs to be given to relevant personnel. Laboratory personnel need to ensure that they follow written safety instructions at all times.

1 Scope

This document specifies a method for determining the fire resistance of air transfer grilles (ATG).

It is applicable to air transfer grilles intended for installation in building components (typically walls, floors or ceilings). The orientation of the installation of the air transfer grille can be vertical or horizontal.

The closing mechanism of the air transfer grille can come from expansion of material and/or from any mechanical or electrical closing device.

This test method is valid for fire resistant or fire resistant and smoke control air transfer grilles.

An additional test configuration is valid for fire resistant or fire resistant and smoke control air transfer grilles in applications where flame impingement is a risk during open state from start of fire (Annex A).

This test method evaluates the behaviour of the air transfer grille when exposed to the standard fire curve described in EN 1363 1 and the standard pressure described in EN 1363 1. It is not the intention of this test to provide quantitative information on the rate of leakage of smoke and/or hot gases or on the transmission or generation of fumes under fire conditions. Such phenomena are only noted in describing the general behaviour of test specimens during the test.

The rate of leakage of smoke at ambient temperature or at 200 °C as an optional requirement for ATG with declared smoke control will be confirmed in accordance with EN 1634 3.

This test method is not valid for determining the fire resistance of air transfer grilles that are used in ducts because ATG are considered as separating elements. The test method for ATG, used in ducts is described in the corresponding duct standards.

This test method is not valid for determining the fire resistance of a fire damper or a fire barrier connected to a duct on either or both sides because an ATG is tested as a fire-separating element on its own. Fire dampers are tested according to EN 1366 2. Non-mechanical fire barriers are tested according to EN 1366 12.

This test method is not valid for determining the fire resistance of air transfer grilles in fire doors, shutters and openable windows as specified in EN 1634 1 and EN 1364 2, because the deformation of fire doors, shutters and openable windows in fire conditions differs from the deformation of flexible/rigid walls. Moreover, the location of thermocouples in the door standard is too specific to be handled in this document.

All values given in this document are nominal unless otherwise specified.

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, *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)*

3 Terms and definitions

For the purposes of this document, the definitions given in EN 1363-1, EN 1363-2 and EN ISO 13943, together with the following, apply.

3.1**air transfer grille**

device consisting of an active/reactive part which could include a decorative cover as to be used in practice, allowing movement of air at ambient temperature and pressure and providing fire resistance in case of fire

3.2**air transfer grille flow zone**

total visible surface area of the air transfer grille which allows air to flow from one side to the other (this excludes the air transfer grille frame)

3.3**air transfer grille face**

total surface area of the air transfer grille in its non-installed state (this includes any air transfer grille frame)

3.4**aperture**

opening in the supporting construction in which the air transfer grille is installed and sealed off towards the supporting construction

3.5**modular air transfer grilles**

air transfer grilles that can be fitted together to form a larger ATG unit

3.6**decorative cover**

element which is not a part of the air transfer grille but may form part of the assembly achieving the fire resistance performance

3.7**sustained flaming**

continuous flaming for a period of time longer than 10 s

3.8**notional floor level**

assumed floor level relative to the position of the building element in service

4 Test equipment

See EN 1363-1 and, if applicable, EN 1363-2.

5 Test conditions**5.1 Heating conditions**

The heating conditions and the furnace atmosphere shall conform to those given in EN 1363-1 or, if applicable, EN 1363-2.

5.2 Pressure conditions

Pressure conditions and tolerances shall be as given in EN 1363-1.