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Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware –

Part 11: Fire resistance for operable fabric curtains;

English version EN 15269-11:2018+AC:2019,

English translation of DIN EN 15269-11:2019-09

Erweiterter Anwendungsbereich von Prüfergebnissen zur Feuerwiderstandsfähigkeit und/oder Rauchdichtigkeit von Türen, Toren und Fenstern, einschließlich ihrer Baubeschläge –

Teil 11: Feuerwiderstandsfähigkeit von Feuerschutzvorhängen;

Englische Fassung EN 15269-11:2018+AC:2019,

Englische Übersetzung von DIN EN 15269-11:2019-09

Application étendue des résultats d'essais en matière de résistance au feu et/ou d'étanchéité à la fumée des blocs-portes, blocs-fermetures et ouvrants de fenêtre, y compris leurs éléments de quincaillerie intégrés –

Partie 11 : Résistance au feu des rideaux en toile manoeuvrables;

Version anglaise EN 15269-11:2018+AC:2019,

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In case of doubt, the German-language original shall be considered authoritative.

A comma is used as the decimal marker.

National foreword

This document (EN 15269-11:2018+AC:2019) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings” (Secretariat: BSI, United Kingdom).

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The start and finish of text introduced or altered by amendment is indicated in the text by tags AC AC

English Version

Extended application of test results for fire resistance
and/or smoke control for door, shutter and openable
window assemblies, including their elements
of building hardware —
Part 11: Fire resistance for operable fabric curtains

Application étendue des résultats d'essais en matière
de résistance au feu et/ou d'étanchéité à la fumée des
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y compris leurs éléments de quincaillerie intégrés —
Partie 11: Résistance au feu des rideaux en toile
manoeuvrables

Erweiterter Anwendungsbereich von Prüfergebnissen
zur Feuerwiderstandsfähigkeit und/oder
Rauchdichtigkeit von Türen, Toren und Fenstern,
einschließlich ihrer Baubeschläge —
Teil 11: Feuerwiderstandsfähigkeit von
Feuerschutzvorhängen

This European Standard was approved by CEN on 8 January 2018 and includes Corrigendum approved by CEN on 8 January 2018.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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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European foreword

This document (EN 15269-11:2018+AC:2019) 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 September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

This document includes Corrigendum 1 issued by CEN on 6 March 2019.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags AC.

This document supersedes EN 15269-11:2018.

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

EN 15269, *Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their items of building hardware*, consists of the following parts:

- *Part 1: General requirements;*
- *Part 2: Fire resistance of hinged and pivoted steel door assembly;*
- *Part 3: Fire resistance of hinged and pivoted timber door assemblies and openable timber framed windows;*
- *Part 5: Fire resistance of hinged and pivoted, metal framed, glazed doorsets and openable windows AC deleted text AC;*
- *Part 6: Fire resistance of sliding timber door assemblies AC) AC;*
- *Part 7: Fire resistance of sliding steel door assemblies;*
- *Part 10: Fire resistance of steel rolling shutter assemblies;*
- *Part 11: Fire resistance of operable fabric curtains AC deleted text AC;*
- *Part 20: Smoke control for hinged and pivoted steel, timber and metal framed glazed doorsets.*

¹⁾ Under preparation.

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 is one of a series of standards intended to be used for the purpose of producing an extended application report based on the evaluation of one or more fire resistance and/or smoke control tests. These standards may also be used to identify the best selection of test specimens required to cover a wide range of product variations.

Before there can be any consideration for extended application the doorset should have been tested in accordance with EN 1634-1 to achieve a test result which could generate a classification in accordance with EN 13501-2 at least equal to the classification subsequently required from extended application considerations.

A review of the door assembly construction parameters can indicate that one or more characteristics may be improved by a particular parameter variation. All evaluations should be made on the basis of retaining the fire resistance classifications obtainable from testing to EN 1634-1, including those lower than the test duration. However, this should never lead to an increased classification for any specific fire resistance and/or smoke control performance parameter beyond that achieved during any one test unless specifically identified in the relevant Construction Parameter Variation tables within this series of standards.

The effect on the maintaining of the self closing function (C-classification) of the door assemblies following an extended application process is not addressed in this series of standards.

1 Scope

This document covers vertically mounted types of manual or powered, operable fabric curtain assemblies with downward closing operation. Curtain systems are different from (are separated from) door systems due to their not rigid closure element typically made of thin walled materials as for instance woven or knitted fabrics and foils. These closure elements are not able to carry significant loads normal to their surface by their bending stiffness. In other words: curtain systems are separated from door systems because they can only conduct pulling forces by tensile stress in plane to their surface. Pushing forces are not conducted in plane to their surface.

This document establishes the methodology for extending the application of test results obtained from test(s) conducted in accordance with the EN 1634-1 test method for shutters.

Subject to the completion of the appropriate test or tests selected from those identified in Clause 4, the extended application may cover all or some of the following non-exhaustive list of examples:

- uninsulated (E), radiation (EW) or insulated (EI1 or EI2) classifications;
- coiling mechanisms;
- wall/ceiling fixed elements;
- items of building hardware;
- decorative finishes;
- intumescent, draught or acoustic seals;
- alternative supporting construction(s).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1363-1, *Fire resistance tests — Part 1: General Requirements*

EN 1634-1, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 1: Fire resistance test for door and shutter assemblies and openable windows*

EN 13501-2, *Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services*

EN 15269-1, *Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware — Part 1: General requirements*

EN 1993-1-2, *Eurocode 3: Design of steel structures — Part 1-2: General rules — Structural fire design*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1.1

full scale test

test in accordance with EN 1634-1

3.1.2

small scale test

test of parts of the fabric curtain

3.1.3



parts

for definition of parts see Figure A.1

3.1.4

safety edge

electronic device to prevent damage or injuries caused by collision with the bottom bar

Note 1 to entry: Typically fixed on to the bottom bar (Figure A.1:  part B4 ).

3.2 Abbreviations used for Annex B and C calculations

U_t	maximum deflection during fire test	[mm]
G_t	maximum gap between the bottom bar and the floor level	[mm]
H_t	clear height of test specimen	[mm]
W_s	scaled distance between side guides	[mm]
U_s	scaled distance neutral line to max. deflection (horizontal direction)	[mm]
r_s	Radius of scaled deflection	[mm]
P_s	Pressure (20 N/m ²)	[N/m ²]
$C_{s,h}$	horizontal bow length of up scaled curtain	[mm]
$C_{s,v}$	vertical bow length of up scaled curtain	[mm]
t	Thickness of curtain material	[mm]
s_h	space in side guides (horizontal slack)	[mm]
δ_h	horizontal shrinkage (%)	
δ_v	vertical shrinkage (%)	