



Institut luxembourgeois de la normalisation  
de l'accréditation, de la sécurité et qualité  
des produits et services

## ILNAS-EN 1634-1:2014+A1:2018

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

Feuerwiderstandsprüfungen und  
Rauchschutzprüfungen für Türen, Tore,  
Abschlüsse, Fenster und Baubeschläge -  
Teil 1: Feuerwiderstandsprüfungen für

Essais de résistance au feu et  
d'étanchéité aux fumées des portes,  
fermetures, fenêtres et éléments de  
quincailleries - Partie 1: Essais de

01/2018



## National Foreword

This European Standard EN 1634-1:2014+A1:2018 was adopted as Luxembourgish Standard ILNAS-EN 1634-1:2014+A1:2018.

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EUROPEAN STANDARD **EN 1634-1:2014+A1**

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English Version

**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**

Essais de résistance au feu et d'étanchéité aux fumées  
des portes, fermetures, fenêtres et éléments de  
quincailleries - Partie 1: Essais de résistance au feu des  
portes, fermetures et fenêtres

Feuerwiderstandsprüfungen und  
Rauchschutzprüfungen für Türen, Tore, Abschlüsse,  
Fenster und Baubeschläge - Teil 1:  
Feuerwiderstandsprüfungen für Türen, Tore,  
Abschlüsse und Fenster

This European Standard was approved by CEN on 29 December 2012 and includes Amendment 1 approved by CEN on 25 September 2017.

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.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## European foreword

This document (EN 1634-1:2014+A1:2018) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This document includes Amendment 1 approved by CEN on 25 September 2017.

This document supersedes A1 EN 1634-1:2014 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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 [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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

EN 1634, "Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware" consists of the following parts:

- *Part 1: Fire resistance test for door and shutter assemblies and openable windows* (the present document);
- *Part 2: Fire resistance characterisation test for elements of building hardware;*
- *Part 3: Smoke control test for door and shutter assemblies.*

According to the CEN-CENELEC Internal Regulations, the national standards organizations 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

### 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.

It is imperative that an assessment of all potential hazards and risks to health is made and that safety precautions are identified and provided. Written safety instructions need to be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

## 1 Scope

This European Standard specifies a method for determining the fire resistance of door and shutter assemblies and openable windows designed for installation within openings incorporated in vertical separating elements, such as:

- a) hinged and pivoted doors;
- b) horizontally sliding and vertically sliding doors including articulated sliding doors and sectional doors;
- c) folding doors, sliding folding doors /shutters;
- d) tilting doors;
- e) rolling shutter doors;
- f) openable windows;
- g) operable fabric curtains.

This European Standard is used in conjunction with EN 1363-1.

The testing of fire dampers is covered by EN 1366-2.

The testing of closures for conveyor systems is covered by EN 1366-7.

By prior agreement with the test sponsor, additional information may be gained for individual elements of building hardware in order to fulfil the performance criteria identified in EN 1634-2. Based on the observations recorded during the test, the results may be presented in a separate report which should be in accordance with the requirements of EN 1634-2.

⌈A1⌋ Doors tested in accordance with this European Standard and classified in accordance with EN 13501-2 may be accepted for lift landing door applications as an alternative to EN 81-58 and subject to National Regulations. EN 81-58 represents a specific test for lift landing doors and results in an alternative classification which may not be suitable for some other purposes as defined in National Regulations. ⌋A1⌋

## 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.

⌈A1⌋ EN 1363-1 ⌋A1⌋, *Fire resistance tests - Part 1: General Requirements*

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

⌈A1⌋ EN 12519 ⌋A1⌋, *Windows and pedestrian doors - Terminology*

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

⌈A1⌋ *deleted reference* ⌋A1⌋



EN 15269 (all parts), *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*

EN 16034, *Pedestrian doorsets, industrial, commercial, garage doors and openable windows - Product standard, performance characteristics - Fire resisting and/or smoke control characteristics*

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

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1363-1, EN 12519, EN ISO 13943 and the following apply.

#### 3.1

##### **door or shutter assembly**

##### **doorset**

pedestrian doorset or industrial type doorset including any frame or guide, door leaf or leaves, rolling or folding curtain, etc., which is provided to give a fire resisting capability when used for the closing of permanent openings in fire resisting separating elements, which includes any side panel(s), flush over panel(s), transom panel(s) and/or glazing together with the building hardware and any seals (whether provided for the purpose of fire resistance or smoke control or for other purposes such as draught or acoustics) which form the assembly

#### 3.2

##### **openable (for windows only)**

applying to windows with one or more moveable leaf or leaves including any side or over panel(s), perimeter frame and any elements of building hardware

#### 3.3

##### **building hardware**

hinges, handles, locks, exit devices, escutcheons, letter plates, kick plates, sliding gear, closing devices, electrical components, wiring, etc., which are, or can be, used in the doorset

#### 3.4

##### **single action**

action of a door leaf of a (single or double leaf) doorset which only opens in one direction

#### 3.5

##### **double action**

action of a door leaf of a (single or double leaf) doorset which opens in both directions

#### 3.6

##### **floor**

upper surface of the horizontal element on which the doorset is mounted and which extends from the exposed face to the unexposed face of the doorset

#### 3.7

##### **sill**

member which connects two frame jambs together at the base which may or may not be set into the floor and remains visible