



SLOVENSKI STANDARD
oSIST prEN 16034:2010
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Vrata, okna, vrata v industrijske in javne prostore, garažna vrata in okna - Standard za proizvod, zahtevane lastnosti - Požarna odpornost in/ali dimotesnosti

Pedestrian doorsets, industrial, commercial, garage doors and windows - Product standard, performance characteristics - Fire resistance and/or smoke control characteristics

Fenster, Türen und Tore - Produktnorm, Leistungseigenschaften - Feuer und/oder Rauchschutzeigenschaften

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Blocs portes pour piétons, portes et fenêtres industrielles, commerciales et de garage - Norme de produit, caractéristiques de performance - Caractéristiques de résistance au feu et/ou d'étanchéité aux fumées

Ta slovenski standard je istoveten z: prEN 16034

ICS:

13.220.50	Požarna odpornost gradbenih materialov in elementov	Fire-resistance of building materials and elements
91.060.50	Vrata in okna	Doors and windows

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
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ICS

English Version

Pedestrian doorsets, industrial, commercial, garage doors and windows - Product standard, performance characteristics - Fire resistance and/or smoke control characteristics

Blocs portes pour piétons, portes et fenêtres industrielles, commerciales et de garage - Norme de produit, caractéristiques de performance - Caractéristiques de résistance au feu et/ou d'étanchéité aux fumées

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This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 33.

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.

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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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Foreword

This document (prEN 16034:2009) was prepared by CEN/TC 33, "Doors, windows, shutters, building hardware and curtain walling," the secretariat of which is held by AFNOR.

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, and supports essential requirements of EU Directives.

For relationship with EU Directives, see informative Annex ZA, B, C and D, which are integral parts of this document.

This European Standard is one of a series of standards covering windows and pedestrian doorsets, industrial, commercial and garage doors and gates (see Figure 1).

Annexes A and B are informative.

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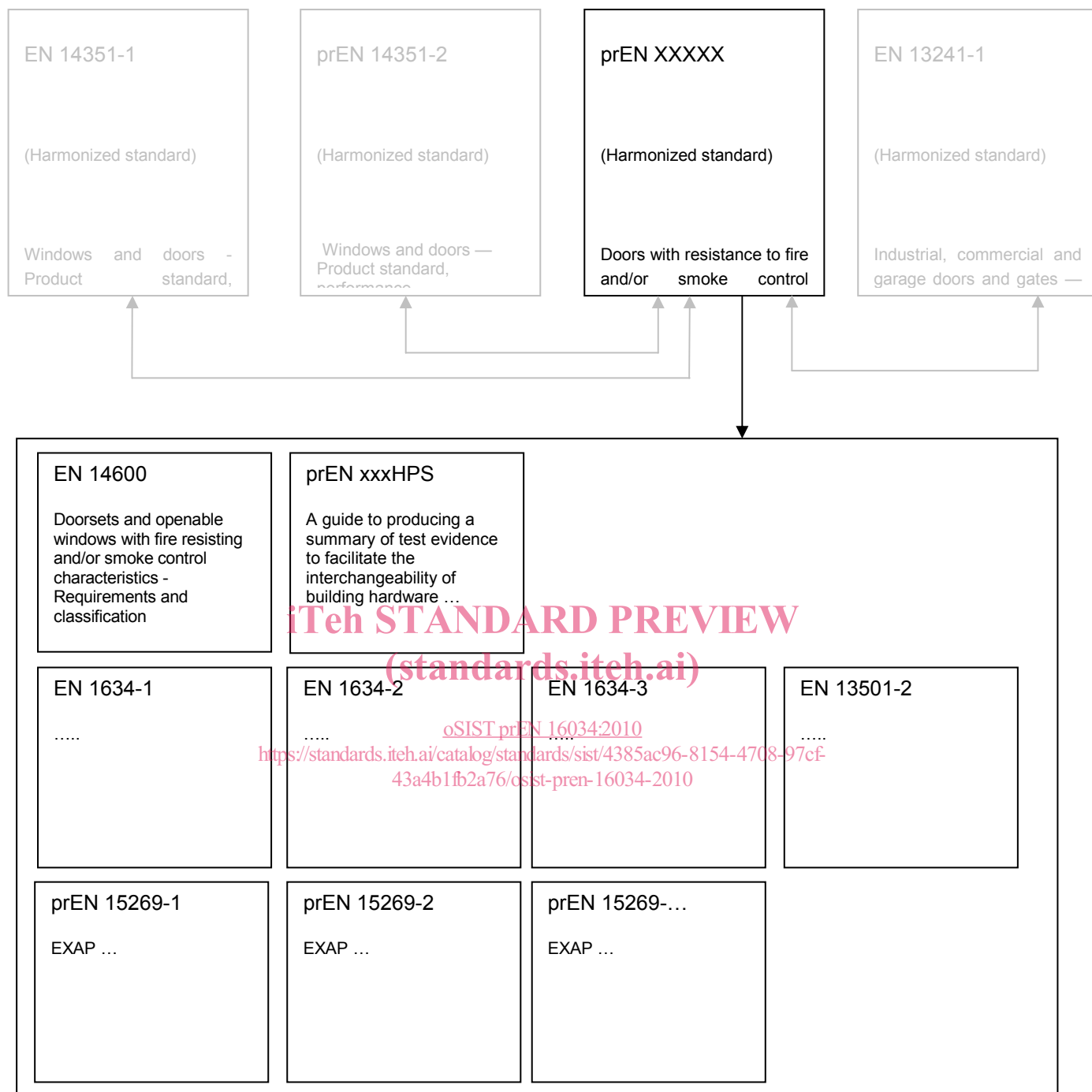


Figure 1 — Relationship between various standards

Introduction

With the aim of clarifying the intentions of this European Standard and avoiding doubts when reading it, the following assumptions were made when producing it:

- a) The terms *pedestrian doorsets* (as defined in EN 14351-1 and/or prEN 14351-2) and *industrial- / commercial- / garage doors* (as defined in EN 13241-1) have been replaced by the term *doorset* in general as the original drafts prEN 14351-3 and prEN 13241-2 have been merged to this one European product standard for fire and/or smoke control characteristics.
- b) Doorsets / openable windows are:
 - designed in accordance with the usual engineering practice and calculation codes for intended use, including all failure modes;
 - of sound mechanical and electrical construction;
 - made of materials with adequate strength and of suitable quality for intended use;
 - general electrical hazards are dealt with according to electrical safety standards such as EN 60204-1.
- c) Doorsets / openable windows are kept in good repair and working order, so that the required characteristics remain during the economical working life despite wear;
- d) Fire resisting and smoke control doorsets / openable windows can only provide their designed fire resistance or smoke control capability when they are in the closed position.
- e) For doorsets / openable windows built according to good practice and the requirements of this European Standard to be fully effective it is assumed that:
 - negotiations occur between the manufacturer and the purchaser concerning particular conditions for the use and places of use for the door related to health and safety;
 - the place of use/installation to be adequately lit;
 - the place of use/installation to allow safe use of the door.

These assumptions do not restrict the need for adequate information for use in this European Standard.

prEN 16034:2009 (E)**1 Scope****1.1 General**

This European Standard identifies material independent, safety and performance requirements related to fire resistance and / or smoke control characteristics that are applicable to industrial- / commercial- / garage doors (as defined in EN 13241-1), pedestrian doorsets and openable windows (as defined in EN 14351-1 and/or prEN 14351-2).

This standard is applicable to all fire resisting and smoke control products which are either:

- rolling shutters used in retail premises which are mainly provided for the access of persons rather than vehicles or goods, or
- fabric curtain barriers when they are used to protect doorways, or
- industrial- / commercial- / garage doors (gates and barriers) intended for the installation in areas in the reach of persons, and for which the main intended uses are giving safe access for goods and vehicles accompanied or driven by persons in industrial, commercial or residential premises (including gates and barriers with fire resistance and/or smoke control characteristic), or
- pedestrian doorsets and/or openable windows, intended for the installation in areas in the reach of persons, and for which the main intended uses are giving safe access for persons in residential premises

and functioning like:

- opening and self closing as a normal mode of operation, or
- normally held open but self closing in case of fire or smoke, or
- normally maintained locked in the closed position, or
- manually or power operated,

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and complete with:

- side panel(s), vision panel(s), flush over panel(s) and/or transom panel(s) contained within a single frame for inclusion in a single aperture, if any.
- building hardware
- any seals, e. g. for smoke, fire, draught, acoustic or weather control purposes

All other characteristics - if required - are covered in EN 13241-1, EN 14351-1 and prEN 14351-2. Characteristics as described in EN 13241-1, EN 14351-1 and prEN 14351-2 shall not compromise the fire and/or smoke characteristic of a fire and/or smoke product and shall be tested on basis of a fire/smoke door.

NOTE 1 Not all characteristics are applicable to every product or every intended end use situation. Where fire and smoke characteristics are required this European Standard identifies the means of determination and the ways to express the results as well as the evaluation of conformity.

NOTE 2 The materials used in doorsets / openable windows should be tested and classified in accordance with EN 13501-1.

The products covered by this European Standard are not assessed for structural applications.

1.2 Exclusions

This European Standard does not cover fixed windows, glazed side panels and glazed vision panels, which are not connected to openable parts.

This European Standard does not cover door assemblies.

This European Standard does not cover operation in environments where the electromagnetic disturbances are outside the range of those specified in EN 61000-6-3.

This European Standard does not cover the radio part of doors. If a radio operating device is used, the relevant ETSI standards should be applied in addition.

This European Standard does not contain any specific requirement regarding noise emitted by a door in relation with the Machinery Directive.

1.3 Specific applications

Fire resisting and/or smoke control doorsets which meet the requirements of this European Standard are not intended to be used as a load carrying part of a structure.

2 Normative references

The following referenced documents are indispensable for the application 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 1634-1, *Fire resistance and smoke tests for door and shutter assemblies — Part 1: Fire doors and shutters*

EN 12433-1, *Industrial, commercial and garage doors and gates — Terminology — Part 1: Types of doors.*

EN 12433-2, *Industrial, commercial and garage doors and gates — Terminology — Part 2: Parts of doors.*

EN 13241-1, *Industrial, commercial and garage doors and gates — Product standard — Part 1: Products without fire resistance or smoke control characteristics.*

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

EN 14600 *Doorsets and openable windows with fire resisting and/or smoke control characteristics - Requirements and classification*

EN 61000-6-3, *Electromagnetic compatibility (EMC) — Part 6-3: Generic standards; Emission standard for residential, commercial and light-industrial environments (IEC 61000-6-3:1996, modified).*

prEN 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 requirement*

3 Terms and definitions

For the purpose of this European Standard, the terms and definitions given in EN 12433-1, EN 12433-2, EN 13241-1, EN 14351-1, prEN 14351-2 and EN 14600 apply:

3.1

doorset

pedestrian doorset (EN 14351-1 and prEN 14351-2) or industrial- / commercial- / garage door (EN 13241-1) 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. This includes any side panel(s), vision panel(s), flush over panel(s) and/or transom panel(s) 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

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NOTE 1 The doorset may be delivered in parts to the building site but it shall be ensured that all parts finally form the originally tested and certified doorset.

NOTE 2 The term 'doorset' will be used as a merged term in this European product standard (see also Introduction, a)). If requirements apply only to pedestrian or industrial-/ commercial-/ garage doorsets/doors it will be defined in the text.

3.2**openable window**

fire resisting and/or smoke control openable window with one or more moveable elements including any fixed or removable side or overpanel(s)

NOTE 1 Fixed windows without any openable elements are not subject to fire resistance testing for doorsets, but to the testing for partitions to EN 1364-1.

4 Performance characteristics and special requirements**4.1 General**

The general requirements

- for doorset given in EN 13241-1, 4.1 (see clause "Requirements, General"), EN 14351-1, (see clause "Performance characteristics and special requirements, general") or prEN14351-2 (see clause "Performance characteristics and special requirements, general"),
- for openable windows given in EN 14351-1, (see clause "Performance characteristics and special requirements, general")

are applicable.

Where environmental characteristics are required in addition to fire resistance and/or smoke control characteristics the performance shall be determined

- for doorsets with the appropriate clause from EN 13241-1, EN 14351-1 and prEN 14351-2,
- for openable windows with the appropriate clause from EN 14351-1.

No characteristic in addition to fire and/or smoke control shall compromise the fire and/or smoke characteristic of the product.

Where any product variation is made or additional components are used to comply with these characteristics the fire resistance/smoke control performance shall not be compromised.

Particular requirements for fire resistance and smoke control performance characteristics shall be determined under 4.2 (Characteristics related to fire resistance and smoke control).

The requirements for product variations for fire and smoke doors are given in EN 14600.

Pedestrian door assemblies fulfilling the provisions of this European Standard under the responsibility of one identified manufacturer are considered to be doorsets.

NOTE The order in which the fire and smoke performance characteristics are identified does not imply an order of priority or a test sequence.

4.2 Characteristics related to fire resistance and smoke control**4.2.1 General**

Where fire and smoke characteristics are required this European Standard identifies the means of determination and the ways to express the results as well as the evaluation of conformity.

4.2.2 Fire resistance

Doorsets / openable windows specifically designed to give fire resistance characteristics shall be tested and classified in accordance with EN 14600.

4.2.3 Smoke control (S_a / S_m)

Doorsets / openable windows specifically designed to give smoke control characteristics shall be tested and classified in accordance with EN 14600.

4.2.4 Self-closing and durability of self-closing (C)

Doorsets / openable windows specifically designed to give fire resistance and/or smoke control characteristics shall be tested for their hold open and self closing function in accordance with EN 14600.

NOTE This clause does not apply to fixed windows.

4.2.4.1 Main requirements for self closing doorsets / openable windows

Fire resisting or smoke control doorsets / openable windows which are not normally closed and locked into the closed position and labelled accordingly shall be self-closing. A fire resisting or smoke control doorset / openable window is deemed to meet the self-closing characteristic if it complies with the requirements of clause "Operability" of EN 14600.

4.2.4.2 Further requirements for self-closing doorsets / openable windows

Self-closing doorsets / openable windows shall not be fitted with any building hardware incorporating a hold-open device which requires manual release.

When a self-closing doorset / openable windows are fitted with a closing device to EN 1154 the closing device shall have at least power size 3.

4.2.4.3 Durability of self-closing doorsets / openable windows

Self-closing doorsets / openable windows shall continue to meet the self-closing characteristic for a reasonably economic working life. A self-closing doorset is deemed to meet the durability of self closing characteristic if it complies with the requirements of clause "Durability of self-closing" of EN 14600 and the compliance is demonstrated by testing in accordance with "Durability and operability of self-closing" of EN 14600.

4.3 Additional requirements for specific performance characteristics

4.3.1 Interchangeability of building hardware

4.3.1.1 General

The requirements for the use and interchange of building hardware are given in EN14600. A Hardware Performance Sheet (HPS) is a summary of test evidence, designed to facilitate the interchangeability of building hardware for application to fire resisting and smoke control doorsets / openable windows. The rules for the interchange of hardware are given in the prEN15269 series of standards (Extended Application).

The purpose of prEN xxx (HPS) is to simplify the collection of data for the interchangeability of building hardware on fire resisting and smoke control doorsets / openable windows.

4.3.1.2 Use of the Hardware Performance Sheet (HPS)

A HPS shall be completed prior to consideration of interchangeability of building hardware in accordance with prEN15269 series of standards (Field of Extended Applications) and shall be part of the technical documentation delivered to a Notified Body by an applicant for CE marking when extended application rules are to be used.

It is the responsibility of the Notified Body to check whether its content is correct and up-to-date.

The HPS gives minimum information which will enable door / doorset, window and building hardware manufacturers to obtain an extended application report from a Notified Body in order to allow the use of alternative hardware.

The content of the HPS comes from official test reports whose identification (test report number and test house) shall be mentioned.

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The HPS can be completed

- by the hardware manufacturer,
- by the door / doorset manufacturer or
- by the Notified Body.

4.3.2 Ability to release and durability of the ability to release for pedestrian doorsets / openable windows on escape routes**4.3.2.1 Ability to release**

Where there is a requirement for pedestrian doorsets / openable windows on escape routes to have the ability to release:

- Pedestrian doorsets / openable windows shall be equipped with a suitable exit device or an electrically controlled exit system and complying to the following standards, for example:
 - EN 179 Emergency exit device;
 - EN 1125 Panic exit device;
 - prEN 13633 Electrically controlled panic exit system;
 - prEN 13637 Electrically controlled exit system;
- Hinges shall comply with EN 1935.
- Pedestrian doorsets / openable windows shall have the correct configuration of the exit device and/or the electrically controlled exit system according to the type of pedestrian doorset / openable window for which the exit device is intended.
- Pedestrian doorsets / openable windows shall not be equipped (either inside or outside) with any additional locking means e. g. a lock, a bolt or a chain that could prevent exit devices and/or electrically controlled exit systems from releasing the door / window leaf.

4.3.2.2 Evidence of the durability of the ability to release

For exit devices or electrically controlled exit systems installed on pedestrian doorsets / openable windows on escape routes with the ability to release special requirements shall be fulfilled:

- The durability of the ability to release of a pedestrian doorset / openable window shall be proven by a test against EN 1191;
- The test shall be carried out with the widest and heaviest version of the pedestrian doorset / openable window family;
- For pedestrian doorsets intended to be glazed the test shall be carried out with this version of the pedestrian doorset / openable window family incorporating the heaviest glazing;
- For double leaf pedestrian doorsets the primary leaf shall be tested to the nominal number of cycles of the durability class, and the secondary leaf to half the number of cycles;
- The test result shall be classified in accordance to EN 12400 for non-self-closing pedestrian doorsets / openable windows and in accordance to EN 14600 for self-closing pedestrian doorsets / openable windows;
- The operating forces shall be determined against EN 12046-2 and classified in accordance with EN 12217 before and after the test.

4.3.3 Doorsets / openable windows on escape routes

Where it is intended to use doorsets / openable windows on escape routes consideration shall be given to the ability to open the doorset / openable window safely and easily due to size, weight and/or mode of operation.

4.3.4 Mechanical aspects of industrial- / commercial- / garage doorsets

The requirements for mechanical aspects shall be in accordance with EN 13241-1, clauses “general”, “force for manual operation”, “mechanical resistance”, “mechanical durability”, “geometry of glazing / glass components”, “protection against cutting”, “protection against tripping” and “release of dangerous substances” for use in the operation under (non-) fire/smoke conditions.

For vertically moving industrial- / commercial- / garage doorsets the mechanical aspect the requirements of clause “safe opening” in EN 13241-1, shall be disregarded.