



**SLOVENSKI STANDARD**  
**oSIST prEN 14351-2:2014**  
**01-julij-2014**

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**Okna in vrata - Standard za proizvod, zahtevane lastnosti - 2. del: Notranja vrata brez določenih lastnosti požarne odpornosti in/ali dimnotesnosti**

Windows and doors - Product standard, performance characteristics - Part 2: Internal pedestrian doorsets without resistance to fire and /or smoke leakage characteristics

Fenster und Türen - Produktnorm, Leistungseigenschaften - Teil 2: Innentüren ohne Feuerschutz- und/oder Rauchdichtheitseigenschaften

Portes et fenêtres - Norme produit, caractéristiques de performances - Partie 2: Blocs-portes intérieurs pour piétons sans caractéristiques de résistance au feu et/ou dégagement de fumée

**Ta slovenski standard je istoveten z: prEN 14351-2**

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**ICS:**

91.060.50      Vrata in okna

Doors and windows

**oSIST prEN 14351-2:2014**

**en,fr,de**



EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN 14351-2**

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English Version

**Windows and doors - Product standard, performance  
characteristics - Part 2: Internal pedestrian doorsets without  
resistance to fire and /or smoke leakage characteristics**

Portes et fenêtres - Norme produit, caractéristiques de  
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Fenster und Türen - Produktnorm, Leistungseigenschaften -  
Teil 2: Innentüren ohne Feuerschutz- und/oder  
Rauchdichtheitseigenschaften

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

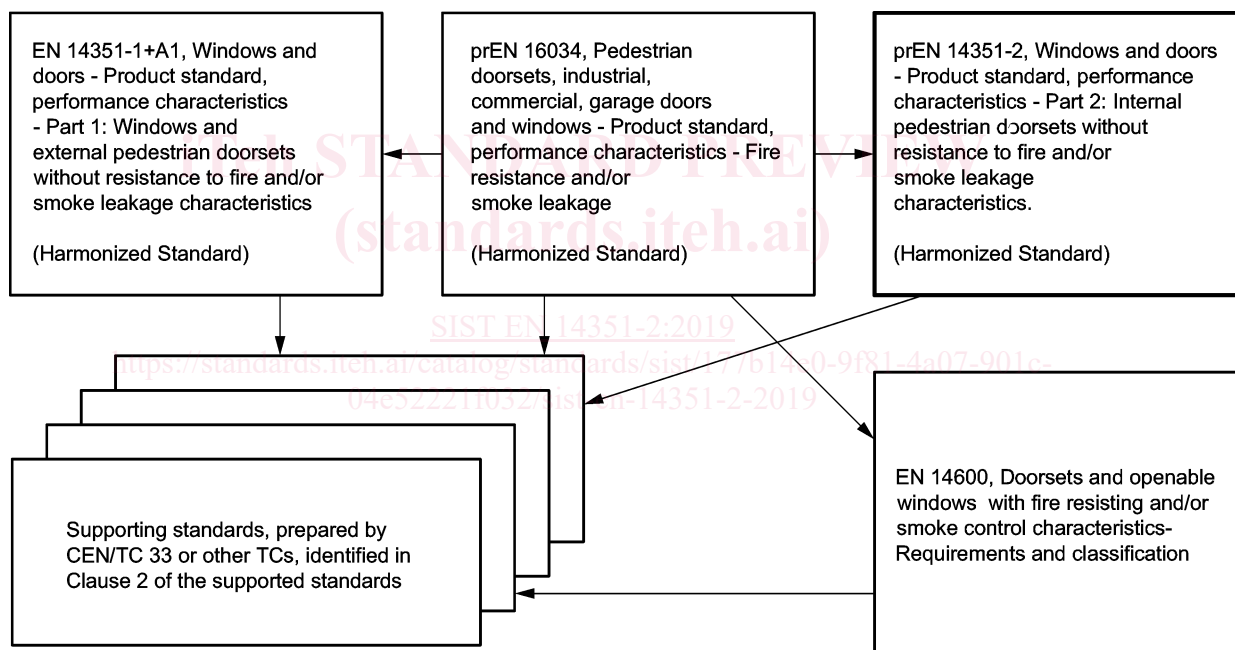
This document (prEN 14351-2:2014) has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters, building hardware and curtain walling”, the secretariat of which is held by AFNOR.

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 Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, B and C, which is an integral part of this document.

This European Standard is one of a series of standards for windows and pedestrian doorsets (see Figure 1).



**Figure 1 — Relationship between various standards**

## 1 Scope

This European Standard identifies material independent performance characteristics that are applicable to internal pedestrian doorsets without resistance to fire and/or smoke leakage characteristics.

This document applies to doorsets intended to be used internally for construction works:

- in escape routes not subject to fire and/or smoke leakage;
- for specific uses with specific requirements;
- for communication only.

NOTE 1 These above intended uses can be combined, for example escape routes with specific requirements.

Products covered by this European standard are power operated hinged or manually operated internal pedestrian doorsets and screens with flush or paneled leaves, single or double leaf, which could be completed with:

- related building hardware;
- door closing devices.

NOTE 2 Manually operated doors with door closing devices are not power operated doors.

- integral fanlights;
- adjacent parts that are contained within a single frame for inclusion in a single aperture.

Products covered by this European standard are not assessed for structural applications.

This European standard does not apply to:

- industrial, commercial and garage doors and gates according to EN 13241-1;
- external pedestrian doorsets according to EN 14351-1;
- door leaves placed on the market separately;
- door frames placed on the market separately;
- power operated pedestrian doorsets according to EN 16361.

The noise emission of power operated interior hinged doors is not considered to be a relevant hazard; therefore this standard does not contain any specific requirements to noise.

## 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 179, *Building hardware — Emergency exit devices operated by a lever handle or push pad — Requirements and test method.*

EN 947, *Hinged or pivoted doors — Determination of the resistance to vertical load*

- EN 948, *Hinged or pivoted doors — Determination of the resistance to static torsion*
- EN 949, *Windows and curtain walling, doors, blinds and shutters — Determination of the resistance to soft and heavy body impact for doors*
- EN 950, *Door leaves — Determination of the resistance to hard body impact*
- EN 951, *Door leaves — Method for measurement of height, width, thickness and squareness*
- EN 1121, *Doors — Behaviour between two different climates — Test method*
- EN 1125, *Building hardware — Panic exit devices operated by a horizontal bar for use in escape routes — Requirements and test methods*
- EN 1154, *Building hardware — Controlled door closing devices — Requirements and test method*
- EN 1191, *Windows and doors — Resistance to repeated opening and closing — Test method*
- EN 1192, *Doors — Classification of strength requirements*
- EN 1522, *Windows, doors, shutters and blinds — Bullet resistance — Requirements and classification*
- EN 1523, *Windows, doors, shutters and blinds — Bullet resistance — Test method*
- EN 1627, *Windows, doors, shutters — Burglar resistance — Requirements and classification*
- EN 1628, *Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under static loading*
- EN 1629, *Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under dynamic loading*
- EN 1630, *Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance to manual burglary attempts*
- EN 1935, *Building hardware — Single-axis hinges — Requirements and test methods*
- EN 12046-2, *Operating forces — Test method — Part 2: Doors*
- EN 12150-2, *Glass in building — Thermally toughened soda lime silicate safety glass — Part 2: Evaluation of conformity/product standard*
- EN 12207:1999, *Windows and doors — Air permeability — Classification*
- EN 12217, *Doors — Operating forces — Requirements and classification*
- EN 12219, *Doors — Climatic influences — Requirements and classification*
- EN 12365-1:2003 *Building hardware – Gasket and weatherstripping for doors, windows, shutters and curtain walling – Part 1: Performance requirements and classification*
- EN 12365-2:2003 *Building hardware – Gasket and weatherstripping for doors, windows, shutters and curtain walling Part 2: Linear compression test method*
- EN 12365-3:2003 *Building hardware - Gasket and weatherstripping for doors, windows, shutters and curtain walling - Part 3: Deflection recovery test method*
- EN 12365-4:2003 *Building hardware - Gasket and weatherstripping for doors, windows, shutters and curtain walling - Part 4: Recovery after accelerated ageing test method*

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- EN 12400, *Windows and pedestrian doors — Mechanical durability — Requirements and classification*
- EN 12519:2004, *Windows and doors — Terminology*
- EN 12600, *Glass in building — Pendulum test — Impact test method and classification for flat glass*
- EN 13049, *Windows — Soft and heavy body impact — Test method, safety requirements and classification*
- EN 13123-1, *Windows, doors and shutters — Explosion resistance — Requirements and classification — Part 1: Shock tube*
- EN 13123-2, *Windows, doors and shutters — Explosion resistance — Test method — Part 2: Range test*
- EN 13124-1, *Windows, doors and shutters — Explosion resistance — Test method — Part 1: Shock tube*
- EN 13124-2, *Windows, doors and shutters — Explosion resistance — Test method — Part 2: Range test*
- EN 13241-1, *Industrial, commercial and garage doors and gates — Product standard — Part 1: Products without fire resistance or smoke control characteristics*
- EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*
- EN 14179-2, *Glass in building — Heat soaked thermally toughened soda lime silicate safety glass — Part 2 : Evaluation of conformity/product standard*
- EN 14351-1, *Windows and doors — Product standard, performance characteristics — Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics*
- EN 14449, *Glass in building — Laminated glass and laminated safety glass — Evaluation of conformity/product standard*
- EN 16005, *Powered pedestrian doors — Safety in use of power pedestrian doors — Requirements and test methods*
- EN ISO 140-3, *Acoustics — Measurement of sound insulation in buildings and of building elements — Part 3: Laboratory measurements of airborne sound insulation of building elements (ISO 140-3)*
- EN ISO 717-1, *Acoustics — Rating of sound insulation in buildings and of building elements — Part 1: Airborne sound insulation (ISO 717-1)*
- EN ISO 10077-1:2006 *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 1: Simplified method (ISO 10077-1)*
- EN ISO 10077-2:2003, *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 2: Numerical method for frames (ISO 10077-2)*
- EN ISO 10140-1, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 1: Application rules for specific products (ISO 10140-1)*
- EN ISO 10140-2, *Acoustics — Laboratory measurement of sound insulation of building elements — Part 2: Measurement of airborne sound insulation (ISO 10140-2)*
- EN ISO 12567-1:2000, *Thermal resistance of windows and doors — Determination of thermal transmittance by hot box method — Part 1: Complete windows and doors (ISO 12567-1)*
- prEN 1026:2013, *Windows and doors — Air permeability — Test method*
- prEN 13637, *Building hardware — Electrically controlled emergency exit systems, for use on escape routes — Requirements and test methods*

prEN 15887, *Building hardware, Uncontrolled door closing devices for single action doors – Requirements and test methods*

prEN 16034, *Pedestrian doorsets, industrial, commercial, garage doors and windows — Product standard, performance characteristics — Fire resistance and/or smoke control characteristics*

### 3 Terms and definitions

For the purposes of this European Standard units and symbols given in ISO 1000:1992 apply and terms and definitions given in EN 14351-1, prEN 16034 and EN 12519 apply together with the following:

#### 3.1

##### **internal pedestrian doorset**

building component which is designed and used to close a permanent opening in internal separating elements and for which the main intended use is the access of pedestrians (e.g. entry doors into flats or into offices and fulfilling the provision above should be considered as an internal pedestrian doorset)

#### 3.2

##### **overall area**

frame width x frame height

[SOURCE: EN 12519:2004, 3.4]

#### 3.3

##### **similar design**

Internal pedestrian doorset in which the replacement of components (e.g. glazing, building hardware, seals), and/or a change of material specification and/or dimensional change of profile section and/or methods and means of assembly does not change the classification and/or declared value of a performance characteristic

#### 3.4

##### **unframed glass doorset**

doorset where the leaf (leaves) and/or adjacent part(s) is (are) made of glass (single or insulating glass unit) and without any load bearing or load transferring framework

#### 3.5

##### **adjacent part**

any part of a doorset, other than the door leaf (leaves), including outer frame, side panels, and over panels

#### 3.6

##### **clear opening within the frame**

[SOURCE: EN 12519:2004, 3.1 and Figure D.1]

#### 3.7

##### **glazed door with injury risk**

doors on which the lower 1500mm is more than 30% glass and of which at least one sheet of glass is greater than 0,2m<sup>2</sup>.

#### 3.8

##### **closing face**

visible face of the door when you close this door by pulling the leaf

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## 3.9

## Symbols

$U_D$  is the standard thermal transmittance for internal pedestrian doorsets.

$U_{st}$  is the thermal transmittance obtained by measurements according to EN 12567-1.

## 4 Requirements

## 4.1 General

The requirements for internal pedestrian doorsets are defined in 4.2 to 4.20 and shall be determined and expressed in accordance with 5.1 to 5.16.

For each requirement this standard identifies the means of their determination and the ways to express the results.

NOTE 1 The order in which the requirements are identified does not imply an order of priority or a test sequence.

If the performance of the product differs between the exposures of the two faces, either both classifications shall be given separately and identified or at least the face exposed to the test shall be given.

NOTE For example, for air permeability class 1 (positive pressure on the closing face), class 3 (negative pressure on the closing face).

For double leaf doorset, the characteristics shall be expressed with 2 values, the first one for the primary leaf and the second one for the secondary leaf.

## 4.2 Release of dangerous substances (only for emissions into indoor air)

National regulations on dangerous substances may require verification and declaration on release and sometimes content when construction products covered by the standard are placed on those market. In this absence of European harmonised test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database of European and national provisions on dangerous substances is available at the Construction web site on EUROPA accessed through: <http://ec.europa.eu/enterprise/construction/cpd-ds/>.

## 4.3 Impact resistance

## 4.3.1 For glazed doors with injury risk

The impact shall not detach or dislodge glazed parts of the doorset in a dangerous manner, nor disconnect any building hardware, nor shall any of its composite parts become dislodged or shattered in a dangerous manner.

When tested in accordance to 5.1, the results shall be expressed in accordance with EN 13049.

## 4.3.2 Impact resistance for unframed glass doorsets

Unframed glass internal pedestrian doorset shall be manufactured with safety glass.

Where the manufacturer intends to declare the resistance of an internal pedestrian doorset with a door leaf of unframed glass, the glass shall comply with EN 12600, EN 12150-2 and EN 14449, EN 14179-2.

## 4.4 Height

The height is the clear opening height of internal pedestrian doorsets. It shall allow unharmed passage. When measured according to 5.2, it shall be expressed in mm including the tolerance.

Where the threshold and the head/transom are not parallel, the maximum and minimum height shall be stated.

NOTE The effective opening/passage height should take into account any projecting building hardware.

## 4.5 Reaction to fire

### 4.5.1 Reaction to fire of components of the product

Reaction to fire is the response of components of doorset in contributing by their own decomposition to a fire to which they are exposed, under specified conditions.

Where the manufacturer wants to declare the reaction to fire of components, it shall be tested according to 5.3 and classified in accordance with EN 13501-1.

The materials to be considered belonging to class A1 without test are listed in the EC Decision 96/603/EC as amended).

The relevant components that can be submitted are:

- profile (frame, stiles and rails);
- infill (e.g. glazing, panels) or door slab;
- sealing and gasket between infill and profile;
- organic coating/top layers (if relevant and not part of the profile or infill).

NOTE A gasket between frame and door leaf is not a relevant component due to negligible influence for reaction to fire performance (compression of the seal and overlapping of the rebate).

Components covered by their own product standard (e.g. glass products) do not need to be re-tested.

### 4.5.2 Reaction to fire of the doorset

Where the manufacturer wants to state the reaction to fire of a doorset, it shall be tested according to 5.3 and classified in accordance with EN 13501-1.

For the classification:

- a) for Euroclass E of doorsets the relevant components (as specified in 4.5.1) shall be tested. The overall result for the product resulting from the single flame test is determined by the main component with the least favourable performance.
- b) for Euroclasses D to A2 of doorsets two alternative routes are possible:
  - 1) the classification shall be either based on the testing of the product; or
  - 2) the classification shall be based on test results of the individual components. The worst Euro classification of the profile, coating or infill/door slab determines the classification of the whole product.

## 4.6 Direct airborne sound insulation (only for uses where acoustic performance is required)

Direct airborne sound insulation for internal pedestrian doorsets is the ability of internal pedestrian doorsets to insulate against direct airborne noise.

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Where the manufacturer wants to declare an acoustic performance of the doorset, it shall either be tested in accordance with the method given in 5.4 and declared in accordance with EN ISO 717-1 or declared in accordance with Annex B, Table B.2.

#### **4.7 Operating forces (only for automatic devices and only for internal landing communication doors and doors for special uses)**

This only applies to doorsets where the safety in use is fulfilled by force limitation.

Operating forces exerted by the door leaf of power operated doorsets, where crushing, shearing or impact hazards are safeguarded by limitation of forces, shall be in accordance with EN 16005:2012, 4.6.7.

#### **4.8 Thermal transmittance (only for uses where thermal insulation performance is required)**

Internal pedestrian doorsets intended to be used to thermally insulate a room (link to the specific requirement energy) shall have a thermal insulation value.

Where the manufacturer wants to declare the thermal transmittance, it shall be tested and expressed in accordance with 5.6.

#### **4.9 Air permeability (only for uses where air permeability performance is required)**

Air permeability performance for internal pedestrian doorsets is the ability to prevent excessive air flow through it.

Where the manufacturer intends to declare the air permeability, the manufacturer shall use the test method given in 5.7 and express the test result following 4.1 and 5.7.

#### **4.10 Suitability to open (only for doors in escape routes)**

Suitability to open is the capability of internal pedestrian doorsets to open in case of emergency exit.

Where the manufacturer intends to declare suitability to open, this shall be ensured by using building hardware complying with EN 179, EN 1125, EN 1935, EN 1154 or prEN 13637.

The result obtained by the method given in 5.8 is expressed as "opens".

#### **4.11 Durability**

**NOTE** The durability of internal pedestrian doorsets depends on the long-term performance of the materials and components, as well as the assembly of the product, its installation and maintenance. Specifications and classifications for individual materials and/or components are to be found in their respective material and component standards.

##### **4.11.1 Durability of air permeability against ageing/degradation:**

The durability of this characteristic depends on the gaskets.

When assessed in accordance to 5.9.1, results shall comply with EN 12365-1:2003, 4.4, 4.6 and 4.7, and expressed as classes according to EN 12365-1:2003, 4.1.

##### **4.11.2 Durability of operating forces (safety in use) (only for automatic devices and only for internal landing communication doors and doors for special uses)**

The durability of this characteristic is measured according to 5.9.2. After the durability test operating forces shall be within the acceptance limits defined in EN 16005:2012, 4.6.7, Table 1.

#### 4.12 Width of the clear opening within the frame

The clear opening width of internal pedestrian doorsets shall allow passage (see Annex D – Dimension A). When measured according to 5.2, it shall be expressed in mm and the tolerance shall be given.

For double leaf doorsets, the width of the clear opening shall be expressed using the width of the clear opening of the primary leaf width and the total width of the clear opening.

NOTE The effective opening/passage width is different from the width of the clear opening within the frame and take into account any projecting building hardware and angle of opening (see examples in Annex D).

#### 4.13 Manual operating forces

The level of the manual operating forces needed to open or to close the door leaf shall permit to choose the relevant doorset.

Where the manufacturer intends to state the manually operating forces, it has to be tested according to 5.10 and the result expressed according to EN 12217.

#### 4.14 Mechanical strength

Internal pedestrian doorsets shall mechanically withstand wear and tear in the intended use for design working life.

Where the manufacturer intends to state the mechanical strength, it has to be tested according to 5.11 and the results shall be expressed in accordance with EN 1192.

#### 4.15 Bullet resistance

Where the manufacturer intends to state the bullet resistance of an internal pedestrian doorset, it has to be tested according to 5.12 and it shall be classified in accordance with EN 1522.

NOTE Not all types of ammunition given in this standard may be used in all EU member states.

#### 4.16 Explosion resistance

Where the manufacturer intends to state the explosion resistance of an internal pedestrian doorset, it shall be classified in accordance with EN 13123-1 for shock tube or EN 13123-2 for range test.

The manufacturer shall use the test method given in 5.13.

#### 4.17 Resistance to repeated opening and closing

Internal pedestrian door sets shall withstand opening and closing for their designed working life.

Where the manufacturer intends to state the resistance of an internal pedestrian doorset subject to repeated opening and closing, a repeated opening and closing test shall be carried out in accordance with 5.14 and shall be expressed in accordance with EN 12400.

#### 4.18 Behaviour between two different climates

Internal pedestrian doorsets installed between two different climates shall remain stable for their designed working life to avoid functioning problems due to possible deformations.

Where the manufacturer intends to state the behaviour of the doorset between two different climates, it shall be expressed in accordance with EN 12219.

The manufacturer shall use the test method and classification given in 5.15.