



SLOVENSKI STANDARD
SIST EN 14351-1:2006/kprA1:2009
01-oktober-2009

C_bU]b`j fUU!`GHUbXUF`X`nUdfc]nj cXžnU H`j UbY`UgfbcgHj!`%`XY.`C_bU]b`j fUU
VfYn`Xc`c Yb]`UgfbcgHj`dcyUfbY`cXdcfbcgHj]b`X]a bchYgbcgHjžj YbXUf`n`j`_`f`Ybc
cXdcfbcgHc`glfYyb]`c`Yb`dfchj`dcyUfi`nini bUb`Y`glfUb]

Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics

iTeh STANDARD PREVIEW
(standards.it/hsa)

Fenster und Türen - Produktnorm, Leistungseigenschaften - Teil 1: Fenster und Außentüren ohne Eigenschaften (bezüglich Feuerschutz) und/oder Rauchdichtheit

Fenêtres et portes - Norme produit, caractéristiques de performance - Partie 1: Fenêtres et blocs-portes extérieurs pour piétons sans caractéristiques de résistance au feu et/ou dégagement de fumée

Ta slovenski standard je istoveten z: EN 14351-1:2006/FprA1

ICS:

91.060.50 Vrata in okna Doors and windows

SIST EN 14351-1:2006/kprA1:2009 en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 14351-1:2006/kprA1:2009

<https://standards.iteh.ai/catalog/standards/sist/f85f247b-7a29-4743-a0b6-59b5334409ea/sist-en-14351-1-2006-kpra1-2009>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

FINAL DRAFT
EN 14351-1:2006

FprA1

July 2009

ICS 91.060.50

English Version

Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics

Fenêtres et portes - Norme produit, caractéristiques de performance - Partie 1: Fenêtres et blocs-portes extérieurs pour piétons sans caractéristiques de résistance au feu et/ou dégagement de fumée

Fenster und Türen - Produktnorm, Leistungseigenschaften - Teil 1: Fenster und Außentüren ohne Eigenschaften bezüglich Feuerschutz und/oder Rauchdichtheit

This draft amendment is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 33.

This draft amendment A1, if approved, will modify the European Standard EN 14351-1:2006. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
1 Modification of the Foreword	4
2 Addition of Introduction	4
3 Modification to Clause 1, Scope.....	4
4 Modifications to 2.2, Test and calculation standards	4
5 Modifications to 2.3, Other standards	5
6 Modification to Clause 3, Terms and definitions.....	5
7 Modification to 4.4.1, Reaction to fire	5
8 Modifications to 4.10, Ability to release	6
9 Modifications to 4.12, Thermal transmittance	6
10 Modification to 4.14, Air permeability.....	6
11 Deletion of 4.24.2, Power operated external pedestrian doorsets.....	6
12 Modifications to 4.24.3, Power operated windows.....	6
13 Modifications to Clause 5, Classification and designation, Table 2.....	7
14 Modification to Clause 6, Handling, installation, maintenance and care.....	7
15 Modification of Clause 7, Evaluation of conformity.....	7
16 Modifications to Table E.1 – Separate determination of characteristics for windows.....	13
17 Modifications to Table E.2 – Separate determination of characteristics for external pedestrian doorsets	14
18 Addition of new Annex H (normative) Selection, preparation, mounting and fixing of test specimen for testing roof windows in accordance with EN 13823 and EN ISO 11925-2 and field of direct application	14
19 Addition of new Annex I (normative) Classification of air permeability of products with described product characteristics	18
20 Addition of new Annex J (normative) Thermal transmittance for windows with bars	18
21 Modification to Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Product Directive	21
22 Modification to Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC.....	37
23 Modification to Annex ZC (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/95/EC.....	38
24 Addition of new Annex ZD (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC	39

Foreword

This document (EN 14351-1:2006/FprA1:2009) 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 Unique Acceptance Procedure.

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 Annexes ZA, ZB, ZC and ZD which are integral parts of this document.

NOTE Annex ZB is applicable until December 28th, 2009 and Annex ZD is applicable from December 29th, 2009.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 14351-1:2006/kprA1:2009](https://standards.iteh.ai/catalog/standards/sist/f85f247b-7a29-4743-a0b6-59b5334409ea/sist-en-14351-1-2006-kprA1-2009)

<https://standards.iteh.ai/catalog/standards/sist/f85f247b-7a29-4743-a0b6-59b5334409ea/sist-en-14351-1-2006-kprA1-2009>

EN 14351-1:2006/FprA1:2009 (E)**1 Modifications to the Foreword**

Replace the two paragraphs below Figure 1 with the following:

"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 Annexes ZA, ZB, ZC and ZD which are integral parts of this document."

Add the following NOTE:

"NOTE Annex ZB was applicable until December 28th, 2009 and Annex ZD is applicable since December 29th, 2009."

2 Addition of Introduction

Add the following new Introduction: "

Introduction

The 1st amendment primarily adds details to previous clauses dealing with evaluation of conformity but without making any fundamental changes. The intention is to facilitate consistent interpretation particularly when addressing the possibilities of cascading ITT. The concept of shared ITT results is not excluded, but will be clarified later.

Furthermore, due to lack of updated supporting standards for powered pedestrian doors, these products have been excluded from the scope.

The opportunity has also been taken in this amendment to amend several technical issues that were under query."

3 Modification to Clause 1, Scope

Replace the second indent of the second paragraph with the following:

"- Manually operated external pedestrian doorsets with flush or panelled leaves, complete with."

4 Modifications to 2.2, Test and calculation standards

Add the following standards:

"EN 13238, *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*",

"EN 13823, *Reaction to fire tests for building products — Building products excluding floorings exposed to the thermal attack by a single burning item*" and

"EN ISO 11925-2, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test (ISO 11925-2:2002)*".

Replace "EN ISO 10077-1:2000, *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 1: Simplified method (ISO 10077-1:2000)*" with "EN ISO 10077-1:2006 *Thermal performance of windows, doors and shutters — Calculation of thermal transmittance — Part 1: General (ISO 10077-1:2006)*".

5 Modifications to 2.3, Other standards

Add the following standard:

"EN 1935, *Building hardware — Single-axis hinges — Requirements and test methods*".

Delete the following standards:

"prEN 12650-1, *Automatic door systems - Part 1: Product requirements and test methods*

prEN 12650-2, *Automatic door systems - Part 2: Safety at automatic pedestrian doors*".

Replace "(IEC 61000-6-1:1997, modified)" with "(IEC 61000-6-1:2005)".

Replace "(IEC 61000-6-3:1996, modified)" with "(IEC 61000-6-3:2006)".

Replace "(ISO 9001:2000)" with "(ISO 9001:2008)".

6 Modification to Clause 3, Terms and definitions

Add the following new terms and definitions:

3.7

conventionally accepted performance (CAP)

provisions presented or referred to in the technical specification that allows manufacturers to declare product performances without the need to perform initial type tests, calculations etc.

NOTE Such provisions can be tabulated values, descriptive solutions and alike.

3.8

classified without the need for further testing (CWFT)

procedure by which the specific performance of a product is initially demonstrated by testing, in such a way that manufacturers may refer to that performance without the need of further tests (other parameters e.g. density, can require testing and controlling)

NOTE It needs to be taken into account in the harmonised product specifications that successful CWFT applications require an EC Decision."

7 Modification to 4.4.1, Reaction to fire

Add in the 1st sentence after "EN 13501-1":

"and Annex H for the selection, preparation, mounting and fixing and field of direct application of the roof windows".

EN 14351-1:2006/FprA1:2009 (E)**8 Modifications to 4.10, Ability to release**

Add in the 1st paragraph ", hinges" after "exit devices" and ", EN 1935" after "EN 1125" to read as follows:

"Emergency exit devices, hinges and panic devices installed on external pedestrian doorsets in escape routes shall comply with EN 179, EN 1125, EN 1935, prEN 13633 or prEN 13637."

9 Modifications to 4.12, Thermal transmittance

Replace

"EN ISO 10077-1:2000, Table F.1"

with

"EN ISO 10077-1:2006, Table F.1 Thermal transmittances for vertical windows with fraction of the frame area 30 % of the whole window area and common types of glazing spacer bars or EN ISO 10077-1:2006, Table F.3 Thermal transmittances for vertical windows with fraction of the frame area 30 % of the whole window area, glazing spacer bars with improved thermal performance and, for windows with bars, Annex J".

Add the following as a 2nd paragraph:

"Calculation previously performed in accordance with EN ISO 10077-1:2000 and tabulated values in accordance with EN ISO 10077-1:2000, Table F.1, may be taken into account with an addition of 0,1 W/m²K."

10 Modification to 4.14, Air permeability

In the 1st paragraph, add "(reference method)" after "EN 1026" to read as follows:

"Two air permeability tests shall be carried out in accordance with EN 1026 (reference method), one with positive test pressures and one with negative test pressures."

Add the following as a new 4th paragraph:

"Classification of products with described product characteristics can be carried out in accordance with Annex I."

11 Deletion of 4.24.2, Power operated external pedestrian doorsets

Delete 4.24.2 in its entirety. Delete the cross reference "4.24.2.1" in the last hyphen of the 1st paragraph of Clause 6. Due to this change, delete

"— operating forces: The durability of this characteristic is covered by 4.24.2.2. (only for automatic devices)" at the end of 4.15.2.

12 Modifications to 4.24.3, Power operated windows

Renumber all cross references throughout the document as follows:

replace "4.24.3" with "4.24.2";

replace "4.24.3.1" with "4.24.2.1";

replace "4.24.3.2" with "4.24.2.2".

13 Modifications to Clause 5, Classification and designation, Table 2

In row No. 9, column "Classification/value", add ", EN 1935" after "EN 1125".

In row No. 15, column "Operating forces", delete footnote to table "b".

In row No. 22, column "Classification value" replace footnote to table "c" three times with "b".

Delete footnote to table "b Manually operated doorsets only." and replace "c" in footnote to table "c" with "b".

14 Modification to Clause 6, Handling, installation, maintenance and care

Delete "and doorsets" in the 1st line of the 2nd paragraph.

15 Modification of Clause 7, Evaluation of conformity

Replace the existing Clause 7 with the following:

"7 Evaluation of conformity

7.1 General

The compliance of windows and external pedestrian doorsets with the requirements of this European Standard and with the stated values (including classes) shall be demonstrated by:

- Initial Type Testing (ITT) (see 7.2);
- Factory Production Control (FPC) (see 7.3);

NOTE 1 Information on special procedure for Initial Type Testing can be found in 7.2.5 (cascading ITT).

NOTE 2 In the context of regulatory marking the responsibilities for the said tasks (testing, control etc.) are given in Tables ZA.3a, ZA.3.b and ZA.3c.

7.2 Initial Type Testing (ITT)

7.2.1 General

An Initial Type Test is the complete set of tests or other procedures, in respect of the characteristics to be assessed, determining the performance of samples of products representative of the product type.

All characteristics in Clause 4 for which the manufacturer is stating a value shall be subject to ITT by tests and/or calculation and/or tabulated values in accordance with the relevant subclauses of Clause 4, with the following exceptions:

- release of dangerous substances may be assessed indirectly by controlling the content of the substance concerned.

NOTE Tabulated values could be also CAP, CWFT.

EN 14351-1:2006/FprA1:2009 (E)

Where components are used where the characteristics of the components have already been determined by the component manufacturer, e.g. radiation properties of IGU, on the basis of conformity with other technical specifications, these characteristics need not be reassessed provided that the components' performance and method of assessment remain the same, that the characteristics of the component are suitable for the intended end use of the finished product, and insofar as the manufacturing process does not have a detrimental affect on the determined characteristics.

Components CE marked in accordance with appropriate harmonised European specifications may be presumed to have the performances stated with the CE marking, although this does not replace the responsibility of the manufacturer to ensure that the product as a whole is correctly designed (where the manufacturer is responsible for the design) and its components have the necessary performance values to meet the design of the product.

Tests previously performed in accordance with the provisions of this European Standard (same product, same characteristic(s), test method, sampling procedure etc.) may be taken into account.

Insofar as it is demonstrative of the declared characteristics, only one ITT is required where different manufacturing units are producing the same product for the same manufacturer using the same materials and the same documented production and process control.

7.2.2 Further type testing

Whenever a change occurs in the window and external pedestrian doorset design, the raw material or supplier of the components, or the production process (subject to the definition of a family), which would affect significantly one or more of the characteristics (i.e. the design becomes dissimilar; see 3.4), the type testing shall be repeated for the concerned characteristic(s).

It is not necessary to make a new ITT in case the product:

- 1) will comprise the same components used for the ITT and will be assembled in accordance with the relevant assembly instructions;
- 2) will comprise components with equivalent performances and will be assembled in accordance with the relevant assembly instructions.

7.2.3 Sampling**7.2.3.1 Selection of samples**

The samples selected for testing shall be representative of the product family, taking into account 3.4 and Annex E as well as the product descriptions. For the purpose of sampling and testing the manufacturer shall have the option of declaring one product from the product family as representative for the whole family or part of it provided that this product has the more unfavourable combination of performance characteristics (see Annex A, Annex E and Annex F).

NOTE A product can be in different families for different characteristics.

Where a range of tests is to be carried out, a sufficient number of samples shall be selected to take account of the destructive nature of the tests (see Annex E). Annex E specifies the number of test specimens (samples) required for each test and any change in size that is allowed for similar designs. Suitable test sequences for windows are identified in Annex G. Products shall only be excluded from selection of samples where they have been clearly marked as defective and have been isolated.

7.2.3.2 Marking of samples

All samples to be used for testing purposes shall be suitably marked to identify which characteristics are to be determined and to ensure traceability.

Sample-marking on the product shall at least include production time, place and date and time of sampling.

7.2.3.3 Sampling report

A sampling report shall be prepared to accompany the sample(s) selected which shall include the following information:

- manufacturer and manufacturing unit;
- place of sampling;
- stock or batch quantity (from which the samples have been taken), if necessary;
- number of samples;
- identification or description of the sample(s) (e.g. by means of cross sections);
- marking of the sample(s) by the sampler;
- purpose of test (e.g. Initial Type Test, audit test);
- characteristics to be determined and clear identification of which sample(s) to be used for the required characteristic(s), where necessary;
- place and date;
- signature of the sampler and the manufacturer, if relevant.

7.2.3.4 Retention of samples

Used samples (test specimens) shall be indelibly marked as already tested. Samples shall be retained until the test report has been granted to the applicant. The manufacturer shall be responsible for the retention and disposal of samples in accordance with his written procedures.

7.2.4 Test report

The results of each test shall be recorded in a test report, which shall, as a minimum, include the following information:

- name of the manufacturer;
- description of the test specimen and sampling information, see 7.2.3.3;
- identification of the testing laboratory, the applied test methods and the personnel executing the test, implying the names of the operators;
- the apparatus and its calibration;
- place and date of the testing;
- the results of the test, including analysis if relevant;
- place, date and authorized signature.

The test report shall comply with the relevant clauses of the technical specifications. The complete set of reports, related to a product, shall be retained by the manufacturer for as long as the product is manufactured plus, as a minimum, ten years.

EN 14351-1:2006/FprA1:2009 (E)**7.2.5 Cascading ITT****7.2.5.1 General**

An assembly designer (who may be either a component manufacturer, a designer, a "system house" or a body providing a common service to manufacturers) who designs an assembly, may submit an "assembled product", using components manufactured by him or by others, to initial type testing performed by a third party in accordance with the performance characteristics listed in Table ZA.1 and then make the ITT report available to assemblers, i.e. the actual manufacturer of the product(s) placed on the market. In this case the assembly designer may make ITT report available to assembling manufacturers on the basis of 'cascading' the appropriate test report down to them.

7.2.5.2 Conditions for use of designer's ITT results

A manufacturer assembling components, some or all of which may be manufactured by others, may take into account the concept of "cascading ITT" in respect of the ITT report prepared on the basis of tests carried out by a notified body when declaring the performance of the product for which he has responsibility for placing on the market only under the following conditions:

- a) the manufacturer (assembler) has an agreement with the assembly designer for the use of the test results and supporting documentation;
- b) the manufacturer (assembler) shall be responsible for placing the product on the market and he shall be responsible for the correct assembly of the product in accordance with the assembly instructions issued by the assembly designer or by any body appointed by him to provide such assembly instructions;
- c) the assembly designer's instructions for assembling the components shall be an integral part of the manufacturer's (assembler's) Factory Production Control (FPC) system;
- d) the manufacturer (assembler) shall be able to provide documented evidence that the combination of components he is using, and his manufacturing processes, correspond to the product that has been subject to the ITT;
- e) the manufacturer (assembler) shall retain a copy of the test report(s) comprising the ITT for 10 years after the finish of production;
- f) irrespective of any responsibility and liability issue within any agreement signed with the assembly designer, the manufacturer (assembler) shall remain responsible for the product being in compliance with all declarations of performance in accordance with this document.

NOTE 1 The formulation of an agreement can be done by licence, contract, or any other type of written consent.

NOTE 2 In the context of regulatory marking the responsibilities for the cascading ITT are given in ZA.2.1.

7.3 Factory Production Control (FPC)**7.3.1 General**

The manufacturer shall establish, document and maintain an FPC system to ensure that the products placed on the market conform to the stated performance characteristics.

The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product.

NOTE The term "manufacturer" does not in any way suggest limitations on the size of the enterprise in question, e.g. number of employees, turnover, number of produced units per year.

The FPC shall be suitable for the type and method of production, e.g. batch quantity, product type.

The results of inspections, tests or assessments requiring action shall be recorded, as shall any action taken. The action to be taken when control values or criteria are not met shall be recorded and retained for the period specified in the manufacturer's FPC procedures.

The manufacturer shall appoint a person to be responsible for the FPC system in each manufacturing unit and shall provide sufficient and competent personnel to establish, document and maintain an FPC system.

Manufacturers having an FPC system which complies with EN ISO 9001 and which addresses the requirements of this standard are recognised as satisfying the FPC requirements.

7.3.2 Personnel

The responsibility, authority and the relationship between personnel that manages, performs or verifies work affecting product conformity, shall be defined. This applies in particular to personnel that needs to initiate actions preventing product non-conformities from occurring, actions in case of non-conformities and to identify and register product conformity problems. Personnel performing work affecting product conformity shall be competent on the basis of appropriate education, training, skills and experience for which records shall be maintained.

7.3.3 Equipment

Testing: Weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

Manufacturing: Equipment used in the manufacturing process shall be regularly inspected and maintained to ensure use, wear or failure does not cause inconsistency in the manufacturing process. Inspections and maintenance shall be carried out and recorded in accordance with the manufacturer's written procedures and the records retained for the period defined in the manufacturer's FPC procedures.

<https://standards.iteh.ai/catalog/standards/sist/f85f247b-7a29-4743-a0b6-50b5234100ca/sist-en-14351-1-2006-kprA1-2009>

7.3.4 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their conformity.

7.3.5 Production process

The manufacturer shall plan and carry out production under controlled conditions. The FPC system shall document the various stages in the production, identify the checking procedure and those individuals responsible for all stages of production.

During the production process itself, a record shall be kept of all checks, their results, and any corrective actions taken. This record shall be sufficiently detailed and accurate to demonstrate that all stages of the production phase, and all checks, have been carried out satisfactorily.

7.3.6 Product testing and evaluation

- The manufacturer shall establish procedures to ensure that the declared values of all of the characteristics are maintained. The means of control are:
 - test and/or inspection of non-finished products or parts hereof during the production process;
 - test and/or inspection of finished products.

Test and/or inspection shall be performed and evaluated in accordance with a test plan (including frequencies and criteria) prepared by the manufacturer and in accordance with any suitable part of relevant test standards.