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# FINAL DRAFT EN 14351-1:2006

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# 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.

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

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Ref. No. EN 14351-1:2006/FprA1:2009: E

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# 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.

## 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”.

## 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 $W/m^2K$.".

## 10 Modification to 4.14, Air permeability

*In the 1st pararagraph, 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.

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 characterisitcs, 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.

### 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.

### 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.

#### 7.3.7 Traceability and marking

Individual products or product batches shall be identifiable and traceable with regard to their production origin. The manufacturer shall have procedures ensuring that processes related to affixing traceability codes and/or markings are inspected regularly.

#### 7.3.8 Non-conforming products

The manufacturer shall have written procedures which specify how non-conforming products shall be dealt with. Any such events shall be recorded as they occur and these records shall be kept for the period defined in the manufacturer's written procedures.

#### 7.3.9 Corrective action

The manufacturer shall have documented procedures that instigate action to eliminate the cause of non-conformities in order to prevent recurrence.

### 7.4 Initial inspection of factory and FPC

An initial inspection shall be made, taking into account the requirements given in 7.3, and the results recorded. The inspection shall verify that:

— procedures are documented when required by this European Standard;

— suitably qualified personnel carry out the manufacturing and test processes;

— appropriate manufacturing and test equipment is available to ensure that products are manufactured in accordance with this European Standard and the manufacturer's documented procedures;

— manufacturing and test equipment is checked regularly for accuracy in accordance with the manufacturer's documented procedures;

— documented processes are carried out in accordance with the manufacturer's documented procedures;

— results are available from the ITT to establish compliance of performance with samples assessed during FPC;

— a procedure exists for dealing with non-conformity of component(s) or product(s).

NOTE In the context of regulatory marking the responsibility for the said task is given in the Tables ZA.3a, ZA.3.b and ZA.3c.

### 7.5 Continuous surveillance, assessment and approval of FPC

Regular assessment of the FPC shall be maintained on the basis of the manufacturer's documented procedures. Inspections shall be undertaken not less than once a year. Where significant deviations from documented procedures are recorded, the frequency of inspections shall be increased as necessary.

Continuous surveillance, assessment and approval shall inspect and record that:

— the requirements of 7.3 and 7.4 are maintained;

— the documented processes are carried out in accordance with the documentation;

— checks according to the test plan demonstrate that products achieve the same values as the product(s) submitted to ITT (see 7.3.6);

— random checks are carried out on the equivalence of the manufactured product with the product(s) submitted to ITT. This may be by indirect measures, e.g. dimensions, component specifications, densities etc. of products selected from the production line, or the stock if the product passes the quality control;

— any non-conformances, comments or recommendations resulting from previous assessments have been appropriately dealt with;

— any significant changes in the factory production control, including significant modifications of the manufacturing process have been identified and their potential effect on the conformity of the product(s) assessed;

— any changes in raw materials, component(s) or supplier(s) shall be identified and their likely effect on the conformity of the finished product(s) shall be assessed.

NOTE In the context of regulatory marking the responsibility for the said task is given in the Tables ZA.3a, ZA.3.b and ZA.3c.

### 7.6 Testing of samples taken at the factory in accordance with a prescribed plan

The testing of samples taken at the factory is considered part of the FPC according to 7.3.6.".

## 16 Modifications to Table E.1 – Separate determination of characteristics for windows

*Replace row 4.4.1 with the following:* "

| | | | | | | |
|---|---|---|---|---|---|---|
| 4.4.1 | Reaction to fire | EN 13501-1 | See EN 13501-1 | Destructive | See EN 13501-1 and Annex H | |

".

*Replace row 4.12 with the following:* "

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.12 | Thermal transmittance | Declared value | EN ISO 10077-1: 2006, Table F.1 or Table F.3, Annex J | Tabulated values | — | Not specified | All sizes |
| | | | EN ISO 10077-1 | Calculation | — | 1,23 (± 25 %) m × 1,48 (-25 %) m or 1,48 (+25 %) m x 2,18 (± 25 %) m | Overall area ≤ 2,3 m² [c d] |
| | | | EN ISO 10077-1 and EN ISO 10077-2 | | — | | Overall area > 2,3 m² [c] |
| | | | EN ISO 12567-1 | Non-destructive | 1 | 1,23 (± 25 %) m × 1,48 (-25 %) m or 1,48 (+25 %) m × 2,18 (± 25 %) m | Overall area ≤ 2,3 m² [c d] |
| | | | EN ISO 12567-2 | | 1 | | Overall area > 2,3 m² [c] |

".

*Replace row 4.14 with the following:* "

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.14 | Air permeability | EN 12207 | EN 1026 | Non-destructive | 1 | Not specified | -100 % to +50 % of test specimen overall area |
| | | | Annex I | Tabulated values | — | Not specified | All sizes |

".

## 17 Modifications to Table E.2 – Separate determination of characteristics for external pedestrian doorsets

*Replace row 4.10 with the following:* "

| | | |
|---|---|---|
| 4.10 | Ability to release | See EN 179, EN 1125, EN 1935, prEN 13633 and prEN 13637 |

".

*Replace row 4.14 with the following:* "

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 4.14 | Air permeability | EN 12207 | EN 1026 | Non-destructive | 1 | Not specified | [c] |
| | | | Annex I | Tabulated values | — | Not specified | All sizes |

".

*Delete footnote to table* "f" *in 4.16, 1st column.*

*Delete footnote to table "* f Manually operated doorsets only.*".*

*Replace footnote to table* "g" *with* "f" *in the last column of rows 4.19 and 4.20 and in the last row of the table.*

## 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

*Add the following new Annex H:* "

# 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

## H.1 EN 13823 (SBI test)

The test specimen consists of one finished roof window with the overall dimensions $1{,}0\,^{0}_{-0{,}2}$ m $\times$ $1{,}5\,^{0}_{-0{,}1}$ m. Handles can be removed from the test specimen, the hole(s) shall be covered by means of non-combustible material covering a minimum area of the test specimen.

The test specimen shall be mounted vertically into the long wing with the inner side facing the burner, see Figure H.1.

NOTE 1 The consequence, i.e. that the infill has a distance to the u-profile of the test rig, is considered acceptable.

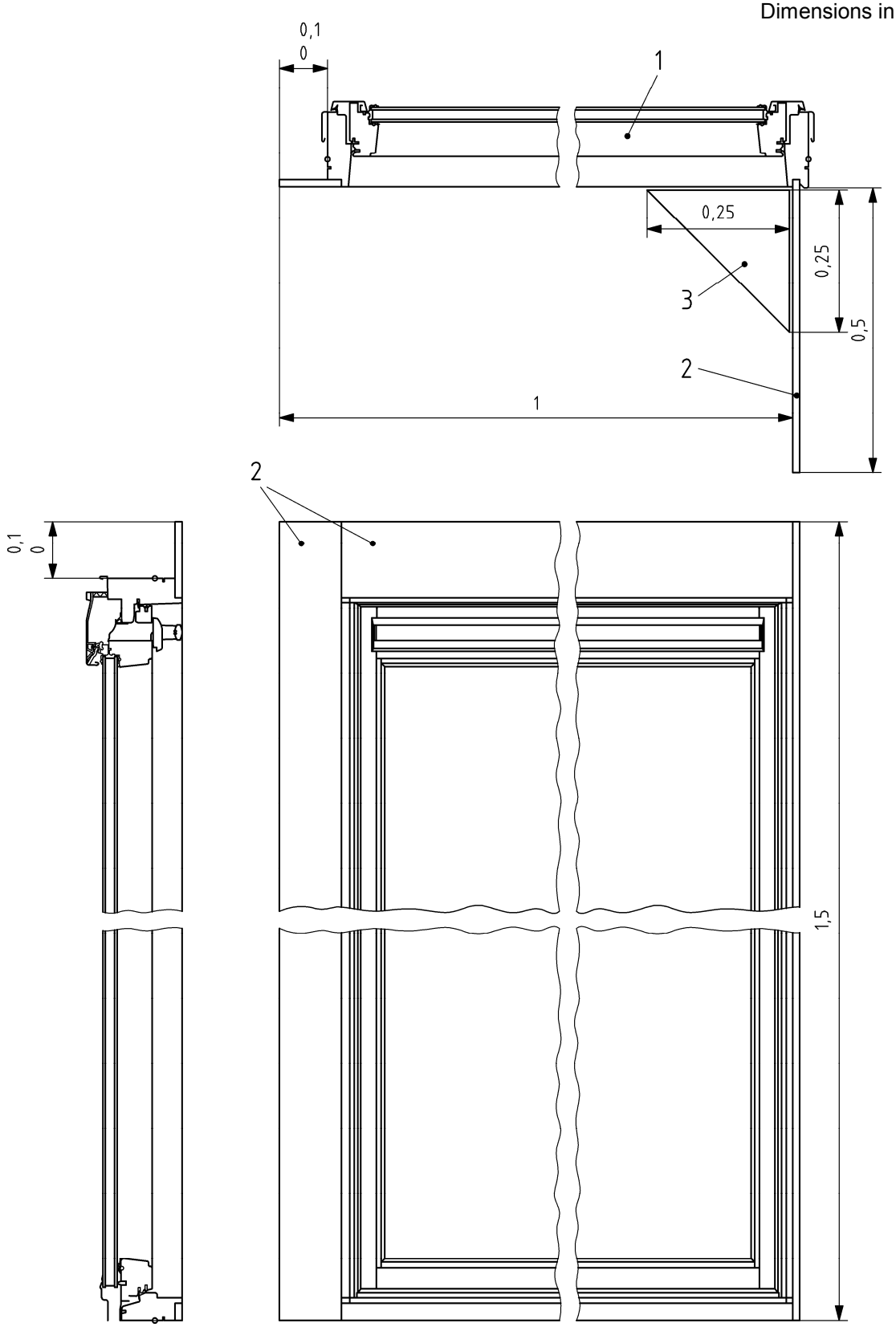
The test specimen and ventilation devices, if any, shall be tested in closed position.

Remaining openings, if any, shall be filled out with non-combustible calcium silicate (CaSi)-board according to EN 13238.

The short wing shall consist of a non-combustible CaSi-board, see Figure H.1. The two wings shall be joined in a way which does not influence the test result.

NOTE 2 The principle is that surfaces which are invisible in the end use installation are covered with CaSi-board.

Dimensions in metres




**Key**
1 test specimen
2 calcium silicate board
3 burner

**Figure H.1 — Test specimen and SBI test rig**

## H.2 EN ISO 11925-2 (Single flame test)

Only the main components of a roof window:

— frame;

— casement/sash;

— infill (if combustible);

shall be subject to the single flame test, if not already classified by Commission Decision.

The test specimen (250 mm long) shall be cut out of the complete frame/casement/sash for a roof window similar to the SBI test specimen in a representative way.

Weather stripping shall not be included. The burner flame shall be applied to the surface(s) (surface flame exposure) visible from the inner side in end use installation. If required, also the outer side can be subjected to the burner flame.

In case of combustible infill, the test specimen (250 mm $\times$ 90 mm) shall be cut out of the complete infill similar to the infill of the SBI test specimen. The burner flame shall be applied to the visible inner side in end use installation by surface flame exposure. If required, also the outer side can be subjected to the burner flame.

The overall result of the single flame test is determined by the main component with the least favourable performance.

## H.3 Field of direct application

The test results (H.1 and H.2) are applicable to roof windows with:

— infill of any type of glass (except laminated glass;

— infill of the same or lower amount of the same combustible materials or of the same or higher reaction to fire classification according to EN 13501-1;

— weather stripping of the same material or material reaching the same or better reaction to fire classification.

Concerning the application rules for the casements/sashes and/or frames the following shall be applied:

— for wooden profiles: Test results from the lowest density of wood with highest exposed surface area are valid for all higher densities and lower exposed areas;

— for plastic profiles: The test result is valid for all other frames or sashes of the same material and with the same or lower unit mass per length;

— for all metallic profiles containing organic components use a test specimen made out of a frame with the highest amount of organic components. The test result is valid also for all other frames of the same material with lower amount of organic components made out of the same organic material;

— profiles made exclusively from materials classified as A1 according to EN 13501-1 need not to be tested;

NOTE The influence of gaskets will be checked by performing some tests before having the possibility to give correct advice how to deal with them.

— for organic finishes apply the rule that all finishes of the same generic organic material with lower mass per unit area are covered by the test result.".

## 19 Addition of new Annex I (normative) Classification of air permeability of products with described product characteristics

*Add the following new Annex I:* "

# Annex I
(normative)

# Classification of air permeability of products with described product characteristics

Classification of products with described product characteristics is shown in Table I.1. The classification is valid for all sizes.

**Table I.1 — Air permeability, classification of products with described product characteristics**

| **Product specification** | **Class according to EN 14351-1, 4.14 and according to EN 12207** |
|---|---|
| External pedestrian doorsets with a continuous weather stripping under appropriate compression | 1 |
| Fixed and openable windows with a continuous weather stripping under appropriate compression | 2 |
| Fixed lights with seal or sealant to the infilling | 3 |

".

## 20 Addition of new Annex J (normative) Thermal transmittance for windows with bars

*Add the following new Annex J:* "

# Annex J
(normative)

# Thermal transmittance for windows with bars

The thermal transmittance ($U_w$) for windows with bar(s) can be calculated by increasing ($\Delta U_w$) the thermal transmittance for the corresponding window without bar(s), determined in accordance with 4.12, as stated in Table J.1.

**Table J.1 — Thermal transmittance for windows with bars**

| Figure | Description | $\Delta U_w$ W/m$^2$K |
|---|---|---|
| J.1 | Attached bar(s) | 0,0 |
| J.2 | Single cross bar in the IGU | 0,1 |
| J.3 | Multiple cross bars in the IGU | 0,2 |
| J.4 | Glazing bar (Georgian bar) | 0,4 |

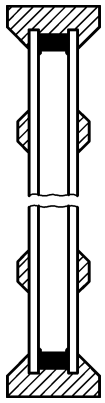


**Figure J.1 — Attached bar(s)**

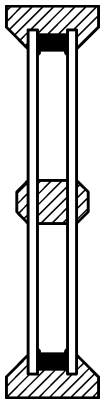


**Figure J.2 — Single cross bar in the IGU**

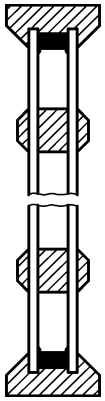


**Figure J.3 — Multiple cross bars in the IGU**

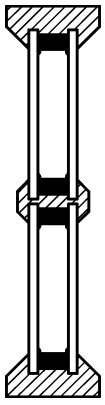


**Figure J.4 — Glazing bar (Georgian bar)**

".

## 21 Modification to Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Product Directive

*Replace the existing Annex ZA with the following:* "

# Annex ZA
(informative)

# Clauses of this European Standard addressing the provisions of the EU Construction Product Directive

## ZA.1 Scope and relevant characteristics

Parts of this European Standard have been prepared under Mandates M/101 Doors, windows, shutters, gates and related building hardware, amendments M/126, M/130 and M/122 Roof coverings, rooflights, roof windows and ancillary products, given to CEN by the European Commission and the European Free Trade Association.

The clauses of this European Standard, shown in this annex, meet the requirements of mandates given under the EU Construction Products Directive (89/106/EEC).

Compliance with these clauses confers a presumption of fitness of the windows and external pedestrian doorsets covered by this annex for the intended uses indicated herein; reference shall be made to the information accompanying the CE marking symbol.

**WARNING — Other requirements and other EU Directives, not affecting the fitness of intended uses, can be applicable to the products falling within the scope of this European Standard.**

NOTE 1 In addition to any specific clauses relating to dangerous substances contained in this standard, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the EU Construction Products Directive, these requirements need also be complied with, when and where they apply.

NOTE 2 An informative database of European and national provisions on dangerous substances is available at the Construction website on EUROPA (accessed through http://ec.europa.eu/enterprise/construction/internal/dangsub/dangmain_en.htm ).

NOTE 3 Comparison between the information accompanying the CE marking symbol and the requirements on a specific building, provided by the specifier, will demonstrate whether or not the product is fit for use in that specific building (see Clause 5).

This annex establishes the conditions for the CE marking of the windows and external pedestrian doorsets intended for the uses indicated in Table ZA.1 and shows the relevant clauses applicable.

This annex has the same scope as Clause 1 of this European Standard with regards to the products covered. It establishes the conditions for the CE marking of windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics intended for the use indicated below and shows the relevant clauses applicable (see Table ZA.1).

**Table ZA.1 — Relevant clauses (performance characteristics)**

**Construction product**: Windows (including roof windows) and external pedestrian doorsets.

**Intended uses**: Communication in domestic and commercial locations.

| CPD ER No. | Essential characteristics | Mandate | | | Requirement clauses in this European Standard | Levels and/or classes | Notes |
|---|---|---|---|---|---|---|---|
| | | M/101 | | M/122 Roof windows | | | |
| | | Windows | Doors | | | | |
| 2 | External fire performance | N | N | Y | 4.4.2 | $B_{ROOF}$ (t1) - $F_{ROOF}$ (t1), $B_{ROOF}$ (t2) - $F_{ROOF}$ (t2), $B_{ROOF}$ (t3) - $C_{ROOF}$ (t3) - $D_{ROOF}$ (t3) - $F_{ROOF}$ (t3), $B_{ROOF}$ (t4) - $C_{ROOF}$ (t4) - $D_{ROOF}$ (t4) - $E_{ROOF}$ (t4) - $F_{ROOF}$ (t4) | |
| | Reaction to fire | N | N | Y | 4.4.1 | A1, A2, B, C, D, E, F | |
| | Resistance to fire (E + EI) | Y | Y | Y | | | |
| | Smoke leakage (S) | Y | Y | N | | | |
| | Self-closing (C) | N | Y (self-closing fire doors only) | N | | | |
| 3 | Watertightness [a] | Y | Y | Y | 4.5 and 4.15 | | Technical classes of convenience |
| | Dangerous substances | Y (indoor impact only)[C] | Y (indoor impact only)[C] | N | 4.6 | | |
| 4 | Resistance to wind load | Y | Y | Y | 4.2 | | Technical classes of convenience |
| | Resistance to snow and permanent load | N | N | Y | 4.3 | | [kN/m²] |
| | Impact resistance | N | Y (glazed doors with injury risk only) | Y | 4.7 and 4.24.1 | | Technical classes of convenience |
| | Load-bearing capacity of safety devices | Y[b] | Y[b] | Y[b] | 4.8 | | Threshold |
| | Height | N | Y | N | 4.9 | | [mm] |
| | Ability to release [a] | N | Y (locked doors in escape routes only)[d] | N | 4.10 and 4.15 | | Technical classes of convenience |
| 5 | Acoustic performance | Y (when required) | Y (when required) | Y | 4.11 | | [dB] |
| 6 | Thermal transmittance [a] | Y (when required) | Y (when required) | Y | 4.12 and 4.15 | | [W/(m² · K)] |
| | Radiation properties | Y (when required) | Y (when required) | Y | 4.13 | | [dimensionless] |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Air permeability [a] | Y (when required) | Y (when required) | Y | 4.14 and 4.15 | | Technical classes of convenience |
| Key Y = Yes<br>N = No | | | | | | | |
| NOTE 1 The grey shaded areas are for the completeness of the Mandates. They are not covered by this European Standard, see Figure 1<br>NOTE 2 The CWFT option for external fire performance, see Commission Decision 2000/553/EC, does not apply to roof windows covered by this European Standard. | | | | | | | |
| [a] Including durability<br>[b] Threshold levels have been identified by the technical specification writers.<br>[c] Indoor impact means influence on the indoor air quality<br>[d] Mechanically secured in closed position | | | | | | | |

The requirement on a certain characteristic is not applicable in those Member States (MSs) where there are no regulatory requirements on that characteristic for the intended use of the product. In this case, manufacturers placing their products on the market of these MSs are not obliged to determine nor declare the performance of their products with regard to this characteristic and the option “No performance determined” (npd) in the information accompanying the CE marking (see ZA.3) may be used. The npd option may not be used, however, where the characteristic is subject to a threshold level.

## ZA.2 Procedure(s) for the attestation of conformity of products

### ZA.2.1 System(s) of attestation of conformity

The system(s) of attestation of conformity of the construction products indicated in Table ZA.1, in accordance with the EC Decision 1999/93/EC (OJEU L29 of 3.2.99) and EC Decision 1998/436/EC (OJEU L194 of 10.7.98) as amended, as given in Annex III of the Mandates M/101 and M/122 respectively, are shown in Table ZA.2 for the indicated intended use(s) and relevant level(s) or class(es).

**Table ZA.2 — System(s) of attestation of conformity (AoC) for external pedestrian doorsets and windows (including roof windows)**

| Products | Intended use(s) | Levels or class(es) | Attestation of conformity system(s) |
|---|---|---|---|
| Doors and gates (with or without related hardware) | Fire/smoke compartmentation and escape routes | | 1 |
| | On escape routes | | 1 |
| | Other declared specific uses and/or uses subject to other specific requirements, in particular noise, energy, tightness and safety in use | | 3 |
| | For internal communication only | | 4 |
| Windows (with or without related hardware) | Fire/smoke compartmentation and on escape routes | | 1 |
| | Any other | | 3 |
| Roof windows | For uses subject to resistance to fire regulations (e.g. fire compartmentation) | Any | 3 |
| | For uses subject to reaction to fire regulations [a] | A1(*), A2(*), B(*), C(*) | 1 |
| | | A1(**), A2(**), B(**), C(**), D, E | 3 |
| | | (A1 to E)(***), F | 4 |
| | For uses subject to external fire performance regulations [b] | Products requiring testing | 3 |
| | | Products "deemed to satisfy" without testing (CWFT lists) | 4 |
| | For uses contributing to stiffening the roof structure | — | 3 |
| | For uses other than those specified above | — | 3 |

NOTE The grey shaded areas are for the completeness of the Mandates. They are not covered by this European Standard, see Figure 1.

System 1: CPD Annex III.2.(i), without audit testing of samples

System 3: CPD Annex III.2.(ii), Second possibility

System 4: CPD Annex III.2.(ii), Third possibility

* Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)

** Products/materials not covered by footnote (*)

*** Products/materials that do not require to be tested for reaction to fire (e.g. products/materials of Class A1 according to Commission Decision 96/603/EC, amended 2000/605/EC)

a Commission Decision 2000/147/EC and 2001/596/EC

b Commission Decision 2001/671/EC

Non-series production – Where a manufacturer produces an individual and non-series product(s) he may be permitted to declare conformity for certain characteristics (characteristics which do not have a special impact on health and safety) without the involvement of a notified body, see superscript $^{X}$ in Tables ZA.3a, ZA.3b and ZA.3c.

Cascading ITT - The ITT report(s) resulting from tests carried out by (a) notified laboratory(ies) may be used for CE marking purposes without the manufacturer (assembler ) having to involve a Notified Body to check the product subject to the provisions given in 7.2.5. However the body with legal responsibility for affixing CE marking will have to be able to demonstrate that the product is functionally identical to the one used for the ITT report.

The attestation of conformity of windows (including roof windows) and external pedestrian doorsets shall be based on the evaluation of conformity procedures indicated in Table ZA.3a, Table ZA.3b and Table ZA.3c resulting from the application of the sub-clauses of this European Standard indicated therein.

Determination of characteristics coming under the control of the product certification body or being performed by a notified test laboratory under the responsibility of the manufacturer, as shown in Table ZA.3a and Table ZA.3b, by means of tabulated values or calculations may be carried out by the manufacturer, but the basis on which the determination is made shall be checked by the same body as indicated for that characteristic in Table ZA.3a and Table ZA.3b.

The testing laboratories notified for initial type testing for systems 1 and 3 should perform their testing using their own testing apparatus and personnel.

Tests might also be performed using the manufacturer's testing facilities, i.e. personnel and equipment, for testing in the framework of conformity attestation, provided that:

— the Notified Body agrees to use the manufacturer's testing facilities knowing that he retains the responsibility for performing the test;

— the manufacturer's facilities for testing are calibrated;

— the tests at the manufacturer's test facilities are performed in strict conformity with the testing procedure of the relevant test technical specifications;

— a Notified Body assists to the test carried out by the manufacturer's staff and decides whether to take into consideration the test results or not;

The use of the manufacturer's testing facilities does not mean sub-contracting. It does not give to the manufacturer the status of a Notified Body.

When a manufacturer's facilities are used by a Notified Body to perform all or part of testing this shall be noted in the test report.

**Table ZA.3a — Assignation of evaluation of conformity tasks for products under AoC system 1**

| Essential characteristics | Task under the responsibility of the product certification body (including sampling) | | | | | | | | | Task under the responsibility of the manufacturer (including sampling) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Continuous surveillance, assessment and approval of FPC by a notified body as described in 7.5 | | | Initial inspection of factory and FPC by a notified body as described in 7.4 | | | Initial type testing of the product by a notified body as described in 7.2 | | | Testing of samples taken at the factory in accordance with a prescribed plan by the manufacturer as described in 7.6 | | | Initial type testing of the product by the manufacturer as described in 7.2 | | | FPC by the manufacturer as described in 7.3 | | |
| | **W** | **D** | **RW** | **W** | **D** | **RW** | **W** | **D** | **RW** | **W** | **D** | **RW** | **W** | **D** | **RW** | **W** | **D** | **RW** |
| Resistance to windload[X] | - | N | N | - | N | N | - | Y | N | All characteristics related to reaction to fire (RW only) and ability to release (locked door on escape routes only) | | | - | N | Y | - | Y | Y |
| Resistance to snow and permanent load | - | - | N | - | - | N | - | - | N | | | | - | - | Y | - | - | Y |
| Reaction to fire * | - | - | Y | - | - | Y | - | - | Y | | | | - | - | N | - | - | Y |
| External fire performance | - | - | N | - | - | N | - | - | Y | | | | - | - | N | - | - | Y |
| Water-tightness[X] | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |
| Dangerous substances | - | N | - | - | N | - | - | Y | | | | | - | N | - | - | Y | - |
| Impact resistance | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |
| Load-bearing capacity of safety devices | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |
| Height | - | N | - | - | N | - | - | N | - | | | | - | Y | - | - | Y | - |
| Ability to release | - | Y | - | - | Y | - | - | Y | - | | | | - | N | - | - | Y | - |
| Acoustic performance[X] | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |
| Thermal transmit-tance[X] | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |
| Radiation properties[X] | - | N | N | - | N | N | - | N | N | | | | - | Y | Y | - | Y | Y |
| Air permeability[X] | - | N | N | - | N | N | - | Y | Y | | | | - | N | N | - | Y | Y |

| | | | | |
|---|---|---|---|---|
| Key | W: | Windows | FPC: Factory production control | |
| | D: | Doors | Y: | The indicated task(s) shall be performed on the product/characteristics in question |
| | RW: | Roof windows | N: | The indicated task(s) need not be performed on the product/characteristic in question |
| | | | -: | The indicated task(s) is not applicable for the product/characteristic in question |

* Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material), see Table ZA.2

X for non-series production these initial type tests (and/or, if relevant, the use of tabulated values and/or calculations) may be performed by the manufacturer

NOTE The term "Notified Body" is used only for organisations notified under article 18 of the CPD (certification bodies, inspection bodies and testing laboratories)

**Table ZA.3b — Assignation of evaluation of conformity tasks for products under AoC system 3**

| Essential characteristics | Tasks under the responsibility of the manufacturer (including sampling) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Initial type testing of the product by a notified body as described in 7.2 | | | Initial type testing of the product by the manufacturer as described in 7.2 | | | FPC by the manufacturer as described in 7.3 | | |
| | W | D | RW | W | D | RW | W | D | RW |
| Resistance to windload[X] | Y | Y | N | N | N | Y | Y | Y | Y |
| Resistance to snow and permanent load | - | - | N | - | - | Y | - | - | Y |
| Reaction to fire** | - | - | Y | - | - | N | - | - | Y |
| External fire performance | - | - | Y | - | - | N | - | - | Y |
| Water-tightness[X] | Y | Y | Y | N | N | N | Y | Y | Y |
| Dangerous substances | Y | Y | - | N | N | - | Y | Y | - |
| Impact resistance | - | N | Y | - | Y (glazed doors with injury risk only) | N | - | Y | Y |
| Load-bearing capacity of safety devices | Y | Y | Y | N | N | N | Y | Y | Y |
| Height | - | N | - | - | Y | - | - | Y | - |
| Acoustic performance[X] | Y | Y | Y | N | N | N | Y | Y | Y |
| Thermal transmittance[X] | Y | Y | Y | N | N | N | Y | Y | Y |
| Radiation properties[X] | N | N | N | Y | Y | Y | Y | Y | Y |
| Air permeability[X] | Y | Y | Y | N | N | N | Y | Y | Y |

Key W: Windows
D: Doors
RW: Roof windows

FPC: Factory production control

Y: The indicated task(s) shall be performed on the product/characteristics in question

N: The indicated task(s) need not be performed on the product/characteristic in question

-: The indicated task(s) is not applicable for the product/characteristic in question

** Products/materials for which the reaction to fire performance is not susceptible to change during the production process

[X] for non-series products these initial type tests (and/or the use of tabulated values and/or calculations) may be performed by the manufacturer

NOTE The term “Notified Body” is used only for organisations notified under article 18 of the CPD (certification bodies, inspection bodies and testing laboratories).

**Table ZA.3c — Assignation of evaluation of conformity tasks for products under AoC system 4**

| Essential characteristics | Tasks under the responsibility of the manufacturer (including sampling) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Initial type testing of the product by a notified body as described in 7.2 | | | Initial type testing of the product by the manufacturer as described in 7.2 | | | FPC by the manufacturer as described in 7.3 | | |
| | W | D | RW | W | D | RW | W | D | RW |
| Resistance to windload[X] | - | - | - | N | N | N | N | N | N |
| Resistance to snow and permanent load | - | - | - | - | - | N | - | - | N |
| Reaction to fire*** | - | - | - | - | - | Y | - | - | Y |
| External fire performance[XX] | - | - | - | - | - | Y | - | - | Y |
| Water-tightness[X] | - | - | - | N | N | N | N | N | N |
| Dangerous substances | - | - | - | N | N | - | N | N | - |
| Impact resistance | - | - | - | - | N (glazed doors with injury risk only) | N | - | N | N |
| Load-bearing capacity of safety devices | - | - | - | N | N | N | N | N | N |
| Height | - | - | - | - | N | - | - | N | - |
| Acoustic performance[X] | - | - | - | N | N | N | N | N | N |
| Thermal transmittance[X] | - | - | - | N | N | N | N | N | N |
| Radiation properties[X] | - | - | - | N | N | N | N | N | N |
| Air permeability[X] | - | - | - | N | N | N | N | N | N |

Key W: Windows
D: Doors
RW: Roof windows

FPC: Factory production control

Y: The indicated task(s) shall be performed on the product/characteristics in question

N: The indicated task(s) need not be performed on the product/characteristic in question

-: The indicated task(s) is not applicable for the product/characteristic in question

*** Products/materials that do not require to be tested for reaction to fire (e.g. products/materials of Class A1 according to Commission Decision 96/603/EC, amended 2000/605/EC).

[X] for non-series products these initial type tests (and/or the use of tabulated values and/or calculations) may be performed by the manufacturer

[XX] Products “deemed to satisfy” without testing (CWFT lists)

NOTE The term “Notified Body” is used only for organisations notified under article 18 of the CPD (certification bodies, inspection bodies and testing laboratories).

### ZA.2.2 EC Certificate and declaration of conformity

In case of products under AoC system 1: When compliance with the conditions of this annex is achieved, the certification body shall draw up the EC Certificate of conformity, which entitles the manufacturer to affix the CE marking. This certificate shall include:

— name, address and identification number of the certification body;

— name and address of the manufacturer, or his authorised representative established within the European Economic Area (EEA) and place(s) of production, possibly in a coded format;

— description of the product (type, identification, use etc.);

— provisions to which the product conforms (i.e. Annex ZA of this European Standard);

— particular conditions applicable to the use of the product (e.g. provisions for use under certain conditions);

— number of certificate;

— conditions and period of validity of the certificate, where applicable;

— name of, and position held by, the person empowered to sign the certificate.

In case of products under AoC system 3: When compliance with the conditions of this annex is achieved, the manufacturer or his agent established within the EEA shall draw up and retain the EC Declaration of conformity, which entitles the manufacturer to affix the CE marking. This declaration shall include:

— name and address of the manufacturer, or his authorised representative established within the EEA, and place(s) of production, possibly in a coded format;

— description of the product (type, identification, use etc.), and a copy of the information accompanying the CE marking;

— provisions to which the product conforms (i.e. Annex ZA of this European Standard);

— particular conditions applicable to the use of the product (e.g. provisions for use under certain conditions);

— name and address of the notified laboratory(ies);

— name of, and position held by, the person empowered to sign the declaration on behalf of the manufacturer or of his authorised representative.

In case of products under AoC system 4*:* When compliance with the conditions of this annex is achieved, the manufacturer or his agent established within the EEA shall draw up and retain the EC Declaration of conformity, which entitles the manufacturer to affix the CE marking. This declaration shall include:

— name and address of the manufacturer, or his authorised representative established in the EEA, and place of production;

— description of the product (type, identification, use,...), and a copy of the information accompanying the CE marking;

— provisions to which the product conforms (i.e. Annex ZA of this European Standard), and a reference to the ITT report(s) and factory production control records (if appropriate);

— particular conditions applicable to the use of the product (e.g. provisions for use under certain conditions);

— name of, and position held by, the person empowered to sign the declaration on behalf of the manufacturer or of his authorised representative.

The above mentioned declaration and certificate shall be presented in the language or languages accepted in the Member State in which the product is to be used.

NOTE 1 The manufacturer may also be the person responsible for placing the product onto the EEA market, if he takes responsibility for CE marking.

NOTE 2 Where some of the information required for the Declaration is already given in the CE marking information, it does not need to be repeated.

## ZA.3 CE marking and labelling

The manufacturer or his authorised representative established within the EEA is responsible for affixing of the CE marking. The CE marking symbol to affix shall be in accordance with Directive 93/68/EEC.

The following information shall accompany the CE marking symbol:

— identification number of the certification body (only for products under AoC system 1);

— name and registered address or identifying mark of the manufacturer;

— the last two digits of the year in which the marking symbol was affixed;

— number of the EC Certificate of conformity (if relevant);

— reference to this European Standard (EN 14351-1:2006+A1:2009);

— description of the product: generic name, material, dimensions etc. and intended use.

The CE marking symbol as well as any accompanying information shall be affixed visibly, legibly and indelibly on one or more of the following locations (hierarchy of manufacturer's preference):

— any suitable part of the product itself, providing the visibility is ensured when the leaves, casements or sashes are opened;

— on an attached label;

— on its packaging;

— on the accompanying commercial document(s) (e.g. a delivery note) or the manufacturers published technical specification(s).

Where the information is split, the location(s) lower in the hierarchy shall repeat that part of the information already placed higher up in the hierarchy.

Information on non-essential characteristic(s) as well as voluntary commercial quality marking may be placed on any location, on condition that the visibility and legibility of the CE marking is not reduced and provided that such information and/or marking is not likely to deceive third parties as to the meaning and form of the CE marking.

In addition to the information listed above, the following information shall accompany the CE marking symbol:

— information on those relevant essential characteristics listed in Table ZA.1 which are to be declared presented as:

  — declared values and, where relevant, levels and/or classes (including “pass” for pass/fail requirements, where necessary) for each essential characteristic as shown in Table ZA.1, taking into account “NOTE” in Table ZA.1;

  — “No performance determined” for characteristics where this is relevant.

The “no performance determined” (npd) option may not be used where the characteristic is subject to a threshold level. Otherwise, the npd option may be used when and where the characteristic, for a given intended end use (see Clause 5) is not subject to regulatory requirements.

Figures ZA.1 and ZA.2 give an example of the information to be given, in order of priority, on the product and/or label and/or packaging and/or commercial documents.

Figure ZA.3 gives an example of the CE marking symbol with the information requested. All other information shall be given, in order of priority, on the product and/or label and/or packaging and/or commercial documents.

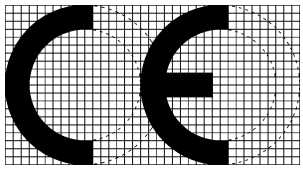
| | |
|---|---|
|  <br>01234 | CE marking, consisting of the CE marking symbol given in Directive 93/68/EEC<br><br>Identification number of certification body (only for products under AoC System 1). |
| AnyCo Ltd. PO Box 21, B-1050<br>09<br>01234-CPD-00234 | Name and registered address of the manufacturer<br>Last two digits of the year in which the marking was affixed<br>Certificate number (only for products under AoC system 1) |
| EN 14351-1:2006+A1:2009<br>Type XYZ- Roof window intended to be used in domestic and commercial locations<br>Resistance to wind load – Test pressure: Class 5<br>Resistance to wind load – Frame deflection: Class B<br>Resistance to snow load: 4-16-4<br>Reaction to fire: Euroclass D<br>External fire performance: npd<br>Watertightness – Non-shielded (A): Class 8A<br>Watertightness – Shielded (B): npd<br>Impact resistance: 450<br>Load-bearing capacity of safety device: Threshold value<br>Acoustic performance: 33 dB (-1; -5)<br>Thermal transmittance: 1,7 W/m$^2$K<br>Radiation properties – Solar factor: 0,55<br>Radiation properties – Light transmittance: 0,75<br>Air permeability: Class 4 | No. of European Standard with year of publication<br>Description of product<br>Information on essential characteristics (see Annex D) |

**Figure ZA.1 — Example CE marking information for roof window**

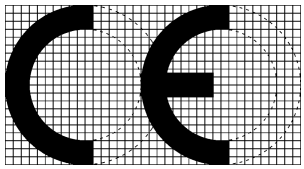
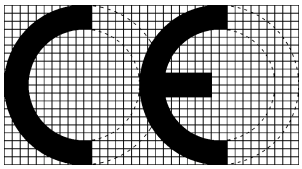
| | |
|---|---|
|  <br>01234 | CE marking, consisting of the CE marking symbol given in Directive 93/68/EEC<br><br>Identification number of certification body (only for products under AoC System 1). |
| AnyCo Ltd. PO Box 21, B-1050<br>09<br>01234-CPD-00234 | Name and registered address of the manufacturer<br>Last two digits of the year in which the marking was affixed<br>Certificate number (only for products under AoC system 1) |
| EN 14351-1:2006+A1:2009<br>Type XYZ- External pedestrian doorset intended to be used in domestic and commercial locations<br>Resistance to wind load – Test pressure: Class 2<br>Resistance to wind load – Frame deflection: Class B<br>Watertightness – Non-shielded (A): Class 5A<br>Watertightness – Shielded (B): npd<br>Height and width: 2 000 mm, 1 000 mm<br>Acoustic performance: 32 dB (-1; -5)<br>Thermal transmittance: 1,7 W/m$^2$K<br>Air permeability: Class 3 | No. of European Standard with year of publication<br>Description of product<br>Information on essential characteristics |

**Figure ZA.2 — Example CE marking information for external pedestrian doorset**



01234

CE marking, consisting of the CE marking symbol given in Directive 93/68/EEC

Identification number of certification body (only for products under AoC System 1).

AnyCo Ltd. PO Box 21, B-1050

09

01234-CPD-00234

Name and registered address of the manufacturer

Last two digits of the year in which the marking was affixed

Certificate number (only for products under AoC system 1)

EN 14351-1:2006+A1:2009

Type XYZ- External pedestrian doorset intended to be used in domestic and commercial locations

No. of European Standard with year of publication

Description of product

**Figure ZA.3 — Example of CE marking information for external pedestrian doorset**

In addition to any specific information relating to dangerous substances, the product shall also be accompanied, when and where required and in the appropriate form, by documentation listing any other legislation on dangerous substances for which compliance is claimed, together with any information required by that legislation.

NOTE 1 European legislation without national derogations need not be mentioned.

NOTE 2 Affixing the CE marking symbol means, if a product is subject to more than one directive, that it complies with all applicable directives.".

## 22 Modification to Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

*Replace the existing Annex ZB with the following:* "

# Annex ZB
(informative)

# Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive Machinery 98/37/EC, amended by 98/79/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative sub-clause 4.24.2.1 of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**WARNING —** Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.".

## 23 Modification to Annex ZC (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/95/EC

*Replace the existing Annex ZC with the following:*"

# Annex ZC
(informative)

# Relationship between this European Standard and the Essential Requirements of EU Directive 2006/95/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive Low Voltage 2006/95/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative sub-clause 4.24.2.1 of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**WARNING —** Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

## 24 Addition of new Annex ZD (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

*Add the following new Annex ZD:* "

# Annex ZD
(informative)

# Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive Machinery 2006/42/EC.

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative sub-clause 4.24.2.1 of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

**WARNING —** Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.".