
Guidance on Declaration of Performance and CE marking of windows and external pedestrian doorsets according to the CPR

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EuroWindoor

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EAA - European Aluminium Association

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UEMV - European Glaziers Association

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1 Introduction

A Declaration of Performance and CE marking permit the manufacturer to make their products available on the market in the entire European Union. Both show the customer that the product conforms to the relevant Union harmonisation legislation.

A shared framework is created for the manufacturer of construction products using the following tools:

- General tests and test procedures valid throughout Europe
- Verification for the whole of Europe

CE marking of windows and external pedestrian doorsets has been compulsory for the European market since 1 February 2010. The CE mark is valid for products that conform to standards and does not refer to installation/assembly. CE marking is **COMPULSORY** and is a legally binding system for any parties who wish to sell their windows or external pedestrian doorsets in the EU.

As of 01.07.2013 where the Construction Products Directive was replaced by the Construction Products Regulation (CPR), the manufacturer confirms by using CE marking that they accept responsibility for the conformity of the construction product with the essential characteristics specified in the Declaration of Performance.

The Construction Products Regulation differentiates between "placing on the market" as the first launch of a construction product on the European Union market (import to Europe) and "making available on the market" as every chargeable or free delivery of a construction product for sale or use on the European Union market within the framework of a business activity (trade within EU borders). This also gives rise to testing and due diligence requirements for importers and distributors (see chapter 7, page 10).

Aim and purpose of Declaration of Performance and CE marking

The CE mark for windows and doors

Construction Products Regulation has replaced Construction Products Directive

The requirements are intended for manufacturers, importers and traders.

2 Scope

This Guidance Sheet explains regulations from the Construction Products Regulation and the EN 14351-1 product standard for windows and external pedestrian doorsets.

CPR and EN 14351-1

It is not to use for testing and certification purposes.

The data is applicable regardless of the material for windows (and casement doors), external pedestrian doorsets, including those which lead to escape routes, roof windows (including those which are fire resistant with external fire performance) and ribbon windows.

Windows and external pedestrian doorsets

Windows and external pedestrian doorsets can have integrated roller shutters, roller shutter casings or closers.

The Guidance Sheet does not deal with the specific requirements for:

Exclusions

- Windows and external pedestrian doorsets regarding their characteristics relating to resistance to fire and/or smoke leakage [EN 16034]
- Curtain walling [EN 13830]
- Structural Sealant Glazing Systems [ETAG 002]
- Industrial, commercial and garage doors [EN 13241-1]
- Internal pedestrian doorsets [covered by the future EN 14351-2]
- External shutters [EN 13659]
- Roof lights [EN 1873] and roof dome lights [EN 14963] made of plastic
- Revolving doorsets
- Power operated pedestrian doors [EN 16361]
- Windows for escape routes

For terms and definitions see Annex 1, page 16.

3 The Construction Products Regulation (EU/305/2011)

From 01.07.2013, the Construction Products Regulation (CPR) replaced the Construction Products Directive. It defines conditions for placing construction products on the market in Europe and applies immediately in all EU member states. A construction product is understood to be any product that is manufactured for permanent installation in construction above or below ground. Every construction product that is included in a harmonised European standard or has been issued with a European Assessment Document, must have a Declaration of Performance and CE marking.

The CPR is a legal requirement from 01.07.2013.

Regarding some details, the text of the CPR requires clarification. For this purpose, the EU Commission has reacted by means of delegated legal acts.

Delegated acts

By affixing the CE marking or allowing it to be attached to a product, the manufacturer accepts responsibility for the conformity of the product with its declared performance and for the conformity with all applicable requirements. The manufacturer or its representative based in the European Union (EU) is responsible, for applying the CE marking to the product itself, either on an attached label, on the packaging or with the accompanying commercial documents.

The manufacturer in the foreground

By issuing the Declaration of Performance, the manufacturer accepts responsibility for the conformity of the construction product with the declared performance. If there is no objective evidence to the contrary, the member states assume that the Declaration of Performance issued by the manufacturer is accurate and reliable (Art. 4 (3) CPR).

CE marking and role of the technical specifications

The CE marking is compulsory for products which primarily meet one of the following requirements:

- Covered by harmonised EN standards (hEN), the details of which have been published in the Official Journal of the European Community
- The manufacturer has an European Technical Assessment (ETA), which is issued on the basis of an European Assessment Document (EAD)

The harmonised European standards are developed by CEN (European Committee for Standardization) and the European Assessment Documents are developed by EOTA (European Organisation for Technical Approvals).

The aim of the Construction Products Regulation is to allow free movement of goods and the marketing thereof within the EU. The presence of a Declaration of Performance/CE marking does not mean that the construction product can be used for every application. It is possible that the essential characteristics required by the Declaration of Performance are entered with "NPD" (not marked in CE) or declared to have insufficient performance. Suitability for the building project requirements must be verified by the consumer/architect/engineer before specific use (see Figure 1).

Usability of the marked products

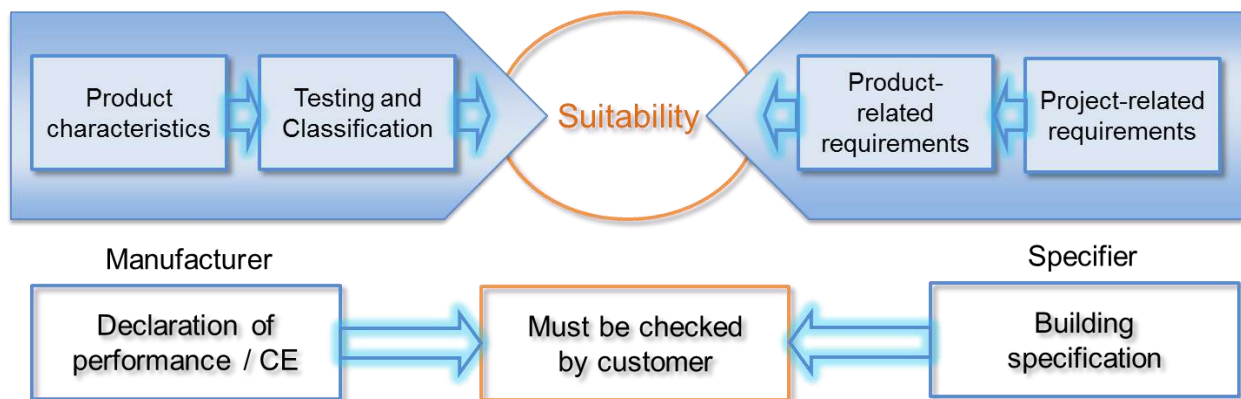


Figure 1: Marketability and specific use


















4 Product characteristics

4.1 Essential characteristics

Harmonised European product standards (hENs) lay down the way in which the performance characteristics of products are to be determined and declared. In accordance with the general specifications of the European Commission and the EU member states, some or all of these characteristics are considered to be "essential characteristics", which must be taken into account in the Declaration of Performance and CE marking. These essential characteristics are listed in Annex ZA of the relevant product standard (see following Table 1).

Annex ZA of the product standard

Table 1: Essential characteristics in accordance with EN 14351-1

Characteristic		W	D	RW	Characteristic		W	D	RW
External fire performance		N	N	Y	Impact resistance		N	Y ^a	Y
Reaction to fire		N	N	Y	Load-bearing capacity of safety devices		Y	Y	Y
Fire resistance		Y	Y	Y	Height		N	Y	N
Smoke protection		Y	Y	N	Ability to release (locked doors in escape routes)		N	Y	N
Self-closing (only for fire doors)		N	Y	N	Acoustic performance		Y	Y	Y
Watertightness		Y	Y	Y	Thermal transmittance		Y	Y	Y
Dangerous substances (only impact on inside)		Y	Y	N	Radiation properties		Y	Y	Y
Resistance to wind load		Y	Y	Y	Air permeability		Y	Y	Y
Resistance to snow and permanent loads		N	N	Y					

W = Window

D = Door

RW = Roof window

Y = mandated characteristic

N = voluntary characteristic or not applicable

^a = only for glazed doors with injury risks

Note: The shaded areas are for the completeness of the Mandates. They are not covered by EN 14351-1.

4.2 Additional characteristics

The following additional performance characteristics are also listed in the EN 14351-1 European product standard:

- Operating forces
- Mechanical strength
- Fracture behaviour (for unframed glass doors)
- Bullet resistance
- Explosion resistance
- Mechanical durability (resistance to repeated opening and closing)
- Burglar resistance
- Behaviour between different climates [only for external pedestrian doorsets]
- Ventilation [only for integrated ventilation units]
- Safety in use [on power-operated windows]

Non-essential characteristics in the product standard

Although these characteristics can be important from a technical perspective, they do not belong to the "essential characteristics" in terms of free movement of goods and they are not a part of the Declaration of Performance and CE marking, since there are currently no legal requirements for the creation of standards in the EU member states for these.

4.3 Ability to release for doors in escape routes

Doors in escape routes with characteristics for the ability to release are subject to the system 1 for Assessing and Verifying the Constancy of Performance (AVCP), which is not described in detail in this Guidance Sheet. If a door is supplied with the ability to release in accordance with EN 14351-1, a certified hardware device is needed and a notified product certification body must be consulted for monitoring the Factory Production Control (FPC).

Doors in escape routes

5 The Declaration of Performance (DoP)

5.1 General information on the Declaration of Performance

The Declaration of Performance describes the performance of the product and is the basis for CE marking.

Figure 2 shows whether a Declaration of Performance and associated CE marking is required.

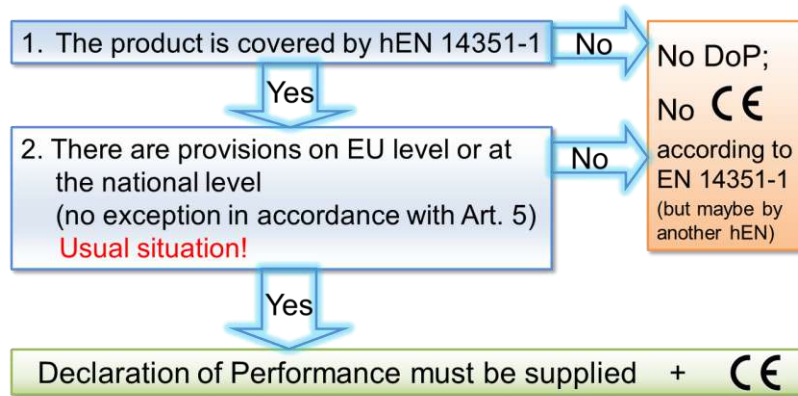


Figure 2: Decision process to see if a Declaration of Performance is required

Unlike the former Declaration of Conformity, a copy of the Declaration of Performance must be supplied to each customer. This can be provided in paper form or by electronic means (e.g. email, USB flash drive, fax etc) or alternatively the manufacturer may decide to upload the copy of DoP on a website under certain conditions (see EU/157/2014) to benefit from new information technologies. If required by the customer, the DoP must be supplied in printed format.

If a product is fabricated at the construction site (e.g. glazing on site by the manufacturer), the Declaration of Performance must be transferred with the CE marking after final completion.

The Declaration of Performance implies that a product has already been manufactured; it can therefore usually not be provided with the quotation.

The requirements for the content of the Declaration of Performance are derived from article 6 with Annex III of the Construction Products Regulation and Annex ZA of the harmonised standard (EN 14351-1). The latter defines the essential characteristics to be listed individually for each product in accordance with the intended use. Figure 3 is an example of a Declaration of Performance.

Based on the technical documentation (see chapter 9, page 15), the manufacturer issues the Declaration of Performance in the official languages of the member state in which he/she is making the construction product available on the market. When providing names no translation to other languages should be made. Information is available via the Product Contact Points of the EU member states (see also 5.2, page 8).

If a buyer receives a batch of the same products, only one copy of the Declaration of Performance needs to be included with the batch. For products that are repeatedly manufactured, the first Declaration of Performance is sufficient, as long as the subsequent products conform to the performance declared. It can also refer back to multiple CE markings and needs not to be re-issued for every batch in every case. The Declaration of Performance must be retained by the manufacturer for 10 years after the product was last made available on the market.

Declaration of performance replaces Declaration of Conformity

Supply and time of availability of the Declaration of Performance

Concurrence of Construction Products Regulation and harmonised product standards

One copy of the Declaration of Performance goes to the customer, the original must be retained for 10 years.

Annex III of the CPR includes a template of the DoP. A delegated act (EU/574/2014) has been adopted allowing the use of different layouts to that of the model. Annex 2 (page 18) contains examples of DoP.

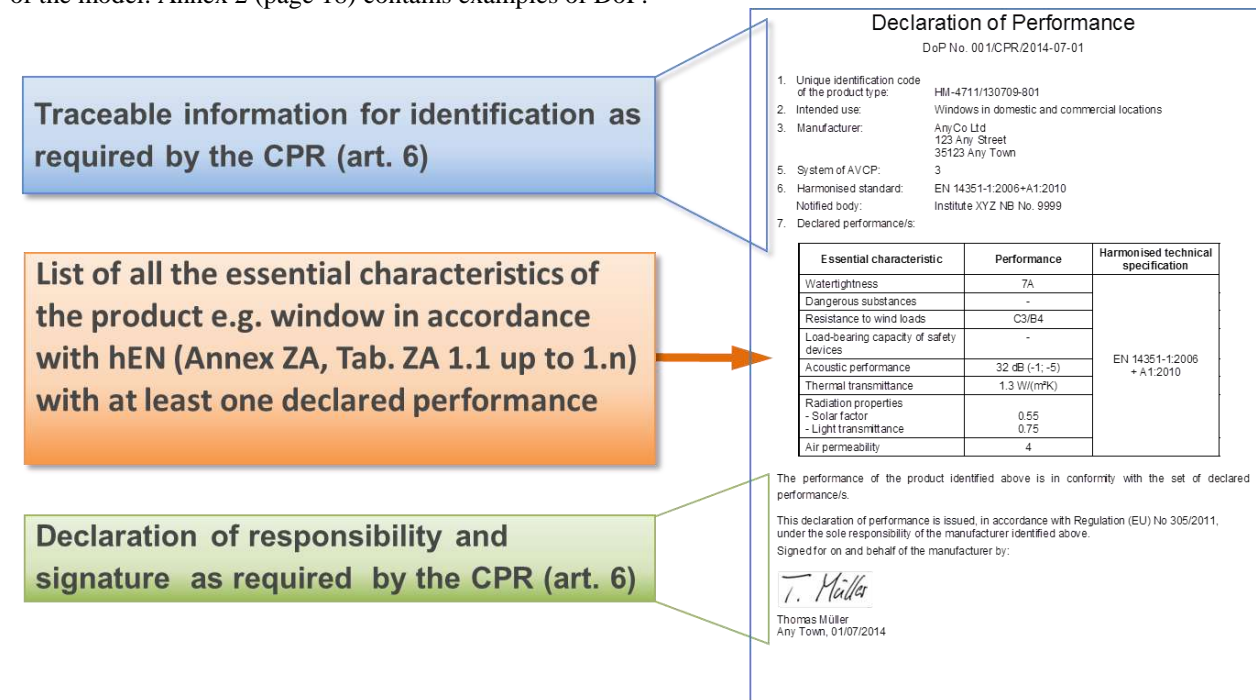


Figure 3: Combination of the Construction Products Regulation and harmonised standard (Table ZA 1.1 up to 1.n) in the contents of the Declaration of Performance

5.2 Contents of the Declaration of Performance

The contents required in the Declaration of Performance are:

- The Unique identification code of the product-type for which the Declaration of Performance was created
- The intended use(s) of the building product (text in accordance with EN 14351-1)
- The name/trade name or registered trademark of the manufacturer and contact address
- Authorised representative, if relevant
- The system(s) of Assessment and Verification of Constancy of Performance (AVCP) of the building product in accordance with Annex V of the EU Construction Products Regulation
- Description and creation/latest amendment date of the harmonised standard; if notified body/ies were involved in the Assessment and Verification of the Constancy of Performance, the identification number of the notified body/ies must be stated (not applicable for notified bodies related to DoP of components).
- The list of the essential characteristics as defined in accordance with Annex ZA for the declared intended use and the declared performance of the building product.
- If applicable, the reference number of Appropriate or Specific Technical Documentation used and the requirements fulfilled by the product in accordance with the specifications of the manufacturer.
- Declaration of responsibility and signature

Components of the Declaration of Performance

All essential characteristics for the intended use (see chapter 4.1, page 5) must be listed in the Declaration of Performance. The performance of at least one essential characteristic must be declared. If individual characteristics are not required by regulations in reference to the intended use, then "NPD" (No Performance Determined) can be entered. If a threshold value (i.e. fulfilled/not fulfilled) must be adhered to for an essential characteristic, "NPD"

List all "essential characteristics" in the Declaration of Performance.

Use of "NPD" (No Performance Determined)

cannot be entered. Non-essential characteristics that are also included in the standard (see chapter 4.2, page 6) can only be stated outside of the Declaration of Performance and the CE marking.

Information related to requirements of Member States in reference to the intended use is provided by the product contact points:

<http://ec.europa.eu/enterprise/intsub/a12/index.cfm?fuseaction=a12.menucontacts>

The Basic Requirements for Construction Works detailed in the Annex I of the Construction Products Regulation, such as "safety and accessibility in use" or "sustainable use of natural resources", must first be converted into essential characteristics for the individual products using the product standards. Until these requirements are specified in the revised standard, no information on them is required in the Declaration of Performance or CE marking.

The product standard forms the basis

Information on the essential characteristics, for example in advertising or as part of the contract or product documentation, are only permitted if these characteristics are declared in the Declaration of Performance.

The product information must correspond to the Declaration of Performance.

Annex ZA of EN 14351-1 states the following as possible specifications for the intended use in accordance with EN 14351-1:

Specifications for intended use

- "Windows in domestic and commercial locations"
- "Roof windows in domestic and commercial locations" or
- "External pedestrian doorsets in domestic and commercial locations".

Annex 2 contains examples of declarations of performance.

6 CE marking for windows and external pedestrian doorsets

The requirements for affixing the CE marking come from article 9 of the Construction Products Regulation and the contents of the Declaration of Performance. A Declaration of Performance of the product is a prerequisite for the CE marking.

No CE mark without Declaration of Performance

The following information must be identified with the CE marking:

- CE marking (logo)
- The last two digits of the year in which the marking was affixed for the first time
- Name and registered address of the manufacturer
- Description of the harmonised standard
- Intended use (as detailed in the hEN 14351-1)
- Unique identification code of the product type
- Reference number of the corresponding Declaration of Performance with link to the website, if DoP was made available on the web
- ID number/s of the notified body/bodies
- List of the declared performance characteristics that the product fulfills.

Contents of the CE mark in accordance with EU Construction Products Regulation

These specifications differ from those in the sample in Annex ZA of the current edition of EN 14351-1 because the standard predates the Construction Products Regulation and can only take the requirements of the regulation into account after the next revision. The requirements of the CPR must be adhered to.

The requirements of the CPR must be met, even if EN 14351-1 does not (yet) recognise the Declaration of Performance and the new CE marking.

Only those essential characteristics for which values or classes are stated in the Declaration of Performance can be included in the CE marking. Additional characteristics (see chapter 4.2, page 6) can only be given if they are clearly separated from the actual CE mark, e.g. in a separate box.

The CE marking is indelibly affixed to the product or a label attached to the product so that it is visible and legible. It can also be affixed to the packaging or accompanying documents (delivery note/accompanying paperwork). The requirement for the CE marking to be durable means that it must be

Affixing the CE marking

clearly legible for the estimated length of time until use. For windows and external pedestrian doorsets the CE marking may be enclosed with the accompanying documents (delivery note/accompanying paperwork) due to the wide range of performance characteristics.

Annex 2 (page 18) contains examples of CE marking.

The CPR requires that the year in which the marking was first affixed be shown. For type production, this can be the year that the product was first put on the market with the corresponding CE marking, based on a Declaration of Performance or existing attestation of conformity. For project-specific consignments, the year of manufacture can be used.

Year of CE marking first affixed for the product type

A condensed version can also be attached to the product. This includes the CE marking and the reference to the product standard. The condensed version requires a complete CE marking to accompany the product.

Condensed version also possible

7 Obligations of importers and distributors

Under the terms of the CPR imports are those products supplied from a country outside the EU. The exceptions are EFTA states (e.g. Switzerland and Norway) and EU candidate countries (e.g. Turkey, Montenegro, FYROM, Iceland), if their national regulations comply with the CPR and any subsequent delegated act.

Imports from "non-EU countries"

Importers can only bring products into circulation in the EU that meet the requirements of the CPR and any subsequent delegated act. They must therefore check whether the building product is covered by a harmonised standard or whether a European Technical Assessment has been issued for the product. They must then check that the manufacturer has carried out the Assessment and Verification of the Constancy of Performance (Type-Testing and Factory Production Control), that they have issued the technical documentation (see chapter 9, page 15) and a Declaration of Performance (see chapter 5, page 7), and that the product has the necessary CE marking (see chapter 6, page 9), operating instructions and safety information (see chapter 11, page 15) in the required national language.

Requirements of importers

Importers must state their name, registered trade name and contact address on the product if possible; if this is not possible, it must be stated on the packaging or in the accompanying documents. They must also retain a copy of the Declaration of Performance for the Market Surveillance Authority for 10 years and ensure that, if this is requested, the technical documentation is also provided.

Distributors must also ensure that the products they sell bear the CE marking and have the necessary documents (Declaration of Performance, instructions and safety information). These documents must also bear the contact address of the manufacturer or the manufacturer and importer.

Requirements of distributors

Importers and distributors must cooperate when requested with the responsible Market Surveillance Authorities and provide them with all the documents necessary to prove that the building product conforms with the Declaration of Performance, in a language that can be easily understood by the authority.

If the importer/distributor modifies the building product or sells the product under its own brand, then they assume the obligations as the manufacturer and must meet all the requirements placed on manufacturers. It is recommended that this is regulated contractually, to ensure access to the required technical documentation of the original manufacturer.

Distributors/importers becoming manufacturers

Importers/distributors must also ensure that they provide the Declaration of Performance in the required language.

8 Assessment and verification of the constancy of performance

8.1 Tasks for manufacturers and notified bodies

The specifications in Annex ZA of the harmonised product standard use different systems from 1+ to 4 to regulate who undertakes which tasks for the Assessment and Verification of the Constancy of Performance (AVCP - formerly: Attestation of Conformity (AoC)) as described in Delegated Regulation EU/568/2014 on CPR Annex V.

This has two core elements; one is the "Determination of the product type", which is the set of representative performance levels or classes and involves assessing the essential performance characteristics of the product, and the other is Factory Production Control (FPC) and the monitoring of this.

Systems of assessment and verification of constancy of performance (ACVP)

The manufacturer is responsible for the Declaration of Performance with the determination of the product type and for carrying out their Factory Production Control. Depending on the AVCP system an authorised body ("notified body") has to carry out continuing surveillance, assessment and evaluation of the Factory Production Control (FPC).

Responsibility of the manufacturer

Table 2: Tasks for manufacturers and notified bodies

Tasks	AVCP System				
	1+	1	2+	3	4
Manufacturer					
Determination of product-type	•	•	•	•	•
Type-testing (TT)			•		•
Factory Production Control (FPC)	•	•	•	•	•
Further testing of samples taken of manufacturing	•	•	•		
Notified Body					
Type-testing (TT)	•	•		•	
Initial inspection of manufacturing plant and FPC	•	•	•		
Surveillance, assessment and evaluation of FPC	•	•	•		
Audit-testing samples	•				

8.2 Determining the essential characteristics (type-testing)

Depending on the specifications of the standard, the product characteristics must be verified by the manufacturers themselves by reference to type testing, type calculation, value tables or product description documents, or by a notified body where applicable (see Table 5, page 14).

Type-testing (TT)

Under AVCP system 3 it is the manufacturer's responsibility to select the test sample or specimen to undergo the type-testing. When selecting a window or pedestrian doorset as a representative test specimen for the type-testing Annex F of EN 14351-1 should be followed.

Table 3 (page 12) and Table 4 (page 13) provide an overview of the possible performance characteristics for windows and external pedestrian doorsets. However details for specifying the requested performance characteristics must be aligned with the overall building requirements (Figure 1, page 5).

Door height windows, lift-and-slide doors and folding-sliding doors are classed as windows for the purpose of testing and classification.

Windows used as doors

Table 3: Classification table of essential characteristics for windows

Characteristic/ value/dimension classification standard	Classification/value											
		1	2	3	4	5	E					
Resistance to wind load		1	2	3	4	5	E					
Test pressure P1 (Pa) in accordance with EN 12211	NPD	(400)	(800)	(1 200)	(1 600)	(2 000)	(>2 000)					
Frame deflection in accordance with EN 12210	NPD	A (≤1/150)		B (≤1/200)			C (≤1/300)					
Resistance to snow and permanent load (roof windows only)	NPD	Thickness and type of glass										
Reaction to fire (roof windows only) EN 13501-1	NPD	F	E	D	C	B	A2	A1				
External fire performance (roof windows only) EN 13501-5	NPD	e.g. B _{roof, (t1)}										
Watertightness in accordance with EN 12208												
Non-shielded (A) Test pressure (Pa)	NPD	1 A (0)	2 A (50)	3 A (100)	4 A (150)	5 A (200)	6 A (250)	7 A (300)	8 A (450)	9 A (600)	E (>600)	
Shielded (B) Test pressure (Pa)	NPD	1 B (0)	2 B (50)	3 B (100)	4 B (150)	5 B (200)	6 B (250)	7 B (300)				
Dangerous substances	-	As required by regulations										
Impact resistance in accordance with EN 13049 (roof windows only)												
Drop height (mm)	NPD	200	300	450	700	950						
Load-bearing capacity of safety devices (EN 948) (if available)	-	Threshold value										
Acoustic performance in accordance with EN ISO 140-3 and EN ISO 717-1 Sound insulation R _w (C,C _{tr}) (dB)	NPD	Declared values										
Thermal transmittance in accordance with EN ISO 12567 or EN ISO 10077 U _w (W/m ² K)	NPD	Declared value										
Radiation properties in accordance with EN 410 or EN 13363-1												
Solar factor g	NPD	Declared value										
Light transmittance τ _v	NPD	Declared value										
Air permeability in accordance with EN 12207	NPD	1	2	3	4							
Max. test pressure (Pa)		(150)	(300)	(600)	(600)							

Table 4: Classification table of essential characteristics for external pedestrian doorsets

Characteristic/ value/dimension classification standard	Classification/value										
		1	2	3	4	5	E				
Resistance to wind load											
Test pressure P1 (Pa) in accordance with EN 12211	NPD	(400)	(800)	(1 200)	(1 600)	(2 000)	(>2 000)				
Frame deflection in accordance with EN 12210	NPD	A (≤1/150)			B (≤1/200)			C (≤1/300)			
Watertightness in accordance with EN 12208											
Non-shielded (A) Test pressure (Pa)	NPD	1 A (0)	2 A (50)	3 A (100)	4 A (150)	5 A (200)	6 A (250)	7 A (300)	8 A (450)	9 A (600)	E (>600)
Shielded (B) Test pressure (Pa)	NPD	1 B (0)	2 B (50)	3 B (100)	4 B (150)	5 B (200)	6 B (250)	7 B (300)			
Dangerous substances	-	As required by regulations									
Impact resistance for glazed doors with injury risk in accordance with EN 13049											
Drop height (mm)	NPD	200	300	450	700	950					
Load-bearing capacity of safety devices (EN 948)	-	Threshold value									
Height (mm) EN 12519 Clause 3.1	NPD	Declared values									
Ability to release (Doors in escape routes only) See EN 179, EN 1125, EN 13633 or EN 13637	NPD	Approved (hardware)									
Acoustic performance in accordance with EN ISO 140-3 and EN ISO 717-1 Sound insulation R_w (C,C _{tr}) (dB)	NPD	Declared values									
Thermal transmittance in accordance with EN ISO 12567 or EN ISO 10077 U_D (W/m ² K)	NPD	Declared value									
Radiation properties in accordance with EN 410 or EN 13363-1											
Solar factor g	NPD	Declared value									
Light transmittance τ_v	NPD	Declared value									
Air permeability in accordance with EN 12207	NPD	1	2	3	4						
Max. test pressure (Pa)		(150)	(300)	(600)	(600)						

If a systems provider has commissioned a notified body to carry out the typetesting and has enabled the manufacturer to use the test report, the manufacturer can use these test reports for the Declaration of Performance/CE marking without requiring the product to be tested again by a notified body as part of the type-testing (see Annex 3, page 23).

Using the test results of a systems provider ("cascading type-testing")

The performance assessment is only carried out ONCE before the start of production. However, the manufacturer must make sure that the quality of the products remains the same in relation to the performance initially demonstrated by the test specimen. This can be ensured by means of suitably operated Factory Production Control (FPC) system.

One test for Europe

However, for products that are classified under systems 1+, 1 or 2+, the manufacturer must be assessed and verified by a notified body.

Type Testing can be carried out in any European country by bodies that are notified accordingly by the Member States of the European Union. A list of the notified bodies has been published by NANDO at <http://ec.europa.eu/enterprise/newapproach/nando/>.

Notified bodies

Table 5: Tasks of the notified body and the manufacturer in system 3

Essential characteristics	Tasks under the responsibility of the manufacturer (including sampling)								
	Type-testing of the product by a notified body			Type-testing of the product by the manufacturer			FPC by the manufacturer		
	W	D	RW	W	D	RW	W	D	RW
Resistance to wind load ^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
Watertightness ^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	-
Operating forces (only for automatic devices)	-	Y	-	-	N	-	-	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/characteristics in question -: The indicated task(s) is not applicable for the product/characteristics in question			** Products/materials for which the reaction to fire is not susceptible to change during the production process. ^x for non-series products these 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 39 of the Construction Products Regulation (product certification bodies, certification bodies for factory production control and test laboratories).								

(Source: EN 14351-1: 2006+A1:2010, Table ZA.3b)

The manufacturer bears the responsibility and must decide whether modifications to the product affect the essential characteristics and therefore require the type-testing to be carried out again. Table 6 shows what impact is to be expected:

Non-essential modifications

Table 6: Interdependence between characteristics and components

Characteristics	Components				
	Hardware ^a	Weather stripping ^b	Frame, casement, sash, leaf		Glazing ^c
			Material ^c	Profile ^d	
Resistance to wind load	(Y)	(Y)	Y	Y	Y
Resistance to snow load	N	N	N	N	Y
Reaction to fire	(Y)	Y	Y	(Y)	N
External fire performance	(Y)	(Y)	(Y)	(Y)	(Y)
Watertightness	(Y)	Y	(Y)	Y	N
Dangerous substances	(Y)	(Y)	(Y)	N	(Y)
Impact resistance	(Y)	N	(Y)	(Y)	Y
Load-bearing capacity of safety devices	Y	N	Y	Y	N
Ability to release	Y	(Y)	(Y)	(Y)	N
Acoustic performance	N	(Y)	(Y)	Y	Y
Thermal transmittance	N	(Y)	(Y)	Y	Y
Radiation properties	N	N	N	N	Y
Air permeability	(Y)	Y	(Y)	Y	N

Key:

Y Modification of the component will probably change the characteristic
(Y) Modification of the component will possibly change the characteristic
N Modification of the component will probably not change the characteristic

(Source: EN 14351-1: 2006+A1:2010, Table A.1)

^a Number, location, fixing^b Number, material^c Young's modulus, thermal conductivity, density^d Area and shape of cross sections, assembly, ventilation devices^e Type, mass, coating, cavity, gas, installation, sealing

9 Technical documentation

As a basis for the Declaration of Performance, the window or door manufacturer creates technical documentation, which contains the reports of the type-testing and the abstract and general description of responsibilities of the Factory Production Control (FPC). The product assessment by a notified body can be used as documentation of the type-testing. The statement of the FPC documents compliance with the requirements of the FPC in accordance with the harmonised product standard to be used (see chapter 7.3 in EN 14351-1).

Contents of the technical documentation

If the manufacturer uses test reports as part of the so-called "shared" or (more commonly: from the systems provider) "cascaded" procedure in accordance with article 36 of the CPR, the technical documentation is called "Appropriate Technical Documentation".

Appropriate Technical Documentation for "shared" and "cascaded" TT

In addition to the abovementioned documents from the systems provider and the manufacturer, a copy of the written agreement between the systems provider and the manufacturer which allows the manufacturer to use the type-test reports subject to the inclusion of the system providers fabrication / assembly details into their FPC, is also required.

If, in special cases (article 37 and 38 of the CPR), the manufacturer uses simplifications of the specifications of the harmonised product standard, they must create "Specific Technical Documentation" (STD). This specifies which procedures they have replaced with others for the Assessment and Verification of the Constancy of Performance (AVCP), and proves that the results achieved are of equal value compared to the procedures specified in accordance with the standard.

Specific Technical Documentation (STD)

Appropriate and Specific Technical Documentation must be referenced in the DoP.

10 Product identification

The manufacturer should identify their product with a type, batch or serial number or other identification mark, and with their name, trade or brand name if applicable, and contact address with a single contact point if applicable.

Identifying the products

This identification requirement is deemed to be fulfilled by the information in the Declaration of Performance and the CE marking. An additional, voluntary, permanent identification of the product can be advantageous for the verification of warranty claims.

11 Other documentation

The manufacturer must enclose the operating instructions and safety information with the product. These must be written in the language of the country of destination.

Operating instructions are essential

The care and maintenance information must contain all necessary information regarding routine care and maintenance, cleaning, suitable cleaning products, lubricants, the settings for moving parts and all procedures for replacing parts or coatings that are damaged or worn.

For building components that are particularly relevant for safety, such as doors in escape routes, any additional requirements from the product standards for hardware, such as maintenance records must be kept if relevant.

Annex 1 Terms and definitions

A 1.1 Definitions from CPR (EU/305/2011)

- ‘manufacturer’ means any natural or legal person who manufactures a construction product or who has such a product designed or manufactured, and markets that product under his name or trademark **manufacturer**
- ‘construction product’ means any product or kit which is produced and placed on the market for incorporation in a permanent manner in construction works or parts thereof and the performance of which has an effect on the performance of the construction works with respect to the basic requirements for construction works **construction product**
- ‘making available on the market’ means any supply of a construction product for distribution or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge **making available on the market’**
- ‘placing on the market’ means the first making available of a construction product on the Union market **placing on the market**

A 1.2 Distinction between windows and curtain walling

The definitions for windows (EN 12519) and curtain walling (EN 13830) are not detailed enough to make a clear distinction between the two products fixed in vertical position. The definitions are as follows:

Definitions in the standards are not detailed enough

Window (EN 12519: 2004-06):

Building component for closing an opening in a wall or pitched roof that will admit light and may provide ventilation

Curtain walling (EN 13830: 2003-11):

External building facade produced with framing made mainly of metal, timber or PVC-U, usually consisting of vertical and horizontal structural members, connected together and anchored to the supporting structure of the building, which provides, by itself or in conjunction with the building construction, all the normal functions of an external wall, but does not contribute to the load bearing characteristics of the building structure.

Three different basic styles of windows can be identified:

1. Punched opening:

- Only one closed frame
- With or without sash bars
- With or without openable casement
- The loads are transmitted laterally and at the bottom direct to the building structure
- Normally fixed between walls, floor and ceiling

2. Window in a vertical opening:

- Only one closed frame
- With or without sash bars
- With or without openable casement
- The loads are transmitted completely laterally to the building structure
- Fixed between two walls and / or loadbearing support
- Several windows are arranged one upon the other. They must not have a horizontal load bearing connection and must not transfer loads between the windows

3. Window in a horizontal opening:

- Only one closed frame
- With or without sash bars
- With or without openable casement
- The occurring loads are fully transferred to the building structure at the bottom or top and / or between beams
- Fixed between floor and ceiling
- Several windows arranged one beside the other may not have a vertical load bearing connection and may not transfer loads between the windows

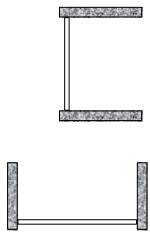


Figure 4: Punched opening

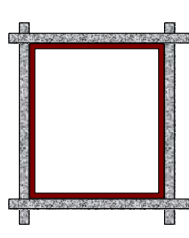


Figure 5: Window/vertical opening

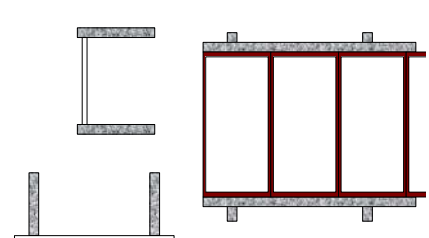
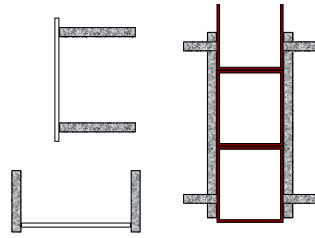


Figure 6: Window/horizontal opening

All other kinds of window-type façade constructions, which are not one of the three window types mentioned above, would normally be considered as curtain walling according to EN 13830:

Curtain walling

- Glazing which is fixed in front of floor and wall or pillars, or
- Glazing with more than one horizontal and vertical frame unit
- Glazing with one or more load bearing connections between frame units
- The glazing may include windows

Curtain walling can also be used as a window.

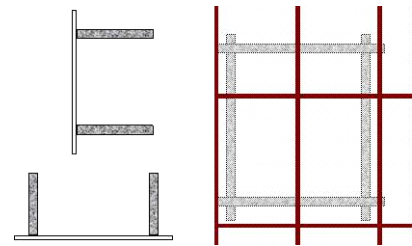


Figure 7: Curtain walling

A 1.3 Distinction between pedestrian and industrial, commercial and garage doors

Door (EN 12519: 2004-06 for pedestrian doors):

Building component for closing an opening in a wall that allows access and may admit light when closed.

Door (EN 12433-1: 2000-02 for industrial, commercial and garage doors):

Device to close and opening which is provided for the passage of vehicles and persons

According to these definitions the difference is as follows:

The main intended use for Pedestrian doors is for persons, while industrial, commercial and garage doors are intended to be used by vehicles and persons. The size is not relevant for distinction.

Annex 2 Examples of declarations of performance and CE marking

The examples of the Declaration of Performances have been prepared in accordance with delegated act (EU/574/2014) on the CPR Annex III.


<h1>Declaration of Performance</h1>		
DoP No. 001/CPR/2014-07-01		
1. Unique identification code of the product type:	HM-4711/130709-801	
2. Intended use:	Windows in domestic and commercial locations	
3. Manufacturer:	AnyCo Ltd 123 Any Street 35123 Any Town	
5. System of AVCP:	3	
6. Harmonised standard:	EN 14351-1:2006+A1:2010	
Notified body:	Institute XYZ NB No. 9999	
7. Declared performance/s:		
	Essential characteristic	Performance
	Performance	Harmonised technical specification
	Watertightness	7A
	Dangerous substances	-
	Resistance to wind loads	C3/B4
	Load-bearing capacity of safety devices	-
	Acoustic performance	32 dB (-1; -5)
	Thermal transmittance	1.3 W/(m ² K)
	Radiation properties - Solar factor - Light transmittance	0.55 0.75
	Air permeability	4
		EN 14351-1:2006 + A1:2010
<p>The performance of the product identified above is in conformity with the set of declared performance/s.</p> <p>This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.</p> <p>Signed for on and behalf of the manufacturer by:</p> <p style="text-align: center;"></p> <p>Thomas Müller Any Town, 01/07/2014</p>		

Figure 8: Example of a Declaration of Performance for a window

Declaration of Performance

DoP No. 130701/WW-900TA/743

1. Unique ID code of the product type:: 130701/WW-900TA/743
2. Intended use: External pedestrian doorset in domestic and commercial locations
3. Manufacturer: AnyCo Ltd
123 Any Street
35123 Any Town
UK
4. Authorised representative: ./.
5. System of AVCP: 3
6. Harmonised standard: EN 14351-1:2006+A1:2010
Notified bodies: 8888, 9999
7. Declared performance/s

Essential characteristics	Performance	Harmonised technical specification
7.1 Weathertightness	1A	EN 14351-1:2006 + A1:2010
7.2 Dangerous substances	-	EN 14351-1:2006 + A1:2010
7.3 Resistance to wind loads	B2	EN 14351-1:2006 + A1:2010
7.4 Impact resistance	2	EN 14351-1:2006 + A1:2010
7.5 Load-bearing capacity of safety devices	-	EN 14351-1:2006 + A1:2010
7.6 Height	2100 mm	EN 14351-1:2006 + A1:2010
7.7 Acoustic performance	npd	EN 14351-1:2006 + A1:2010
7.8 Thermal transmittance	1.8 W/(m ² K)	EN 14351-1:2006 + A1:2010
7.9 Radiation properties - Solar factor - Light transmittance	0.55 0.75	EN 14351-1:2006 + A1:2010
7.10 Air permeability	1	EN 14351-1:2006 + A1:2010

8. Appropriate Technical Documentation: WW-900TA_3

The performance of the product identified above is in conformity with the set of declared performance/s.

This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

p.p. Thomas Müller

Any Town, 01/07/2014



Figure 9: Example of a Declaration of Performance for an external pedestrian doorset


	
<p>14</p> <p>AnyCo Ltd 123 Any Street Any Town, 35123 UK</p>	
<p>Unique identification code of the product-type: HM-4711/130709-801 DoP No.: 001/CPR/2014-07-01</p> <p>EN 14351-1:2006+A1:2010</p> <p>Windows in domestic and commercial locations</p>	
<p>Watertightness</p> <p>Resistance to wind loads</p> <p>Acoustic performance</p> <p>Thermal transmittance</p> <p>Radiation properties</p> <p>- Solar factor:</p> <p>- Light transmittance:</p> <p>Air permeability</p>	<p>7A</p> <p>C3/B4</p> <p>32 dB (-1; 15)</p> <p>1.3 W/(m²K)</p> <p>0.55</p> <p>0.75</p> <p>4</p>
<p>Performance assessed and classification reports by Institute NB No. 9999</p>	

Figure 11: Example of a CE marking for windows


 <p>Notified Bodies 8888, 9999</p>																			
<p>14</p> <p>AnyCo Ltd 123 Any Street Any Town, 35123 UK</p>																			
<p>DoP No.: 130701/WW-900TA/743</p> <p>EN 14351-1:2006+A1:2010</p> <p>External pedestrian doorsets in domestic and commercial locations</p> <table> <tr> <td>Watertightness</td> <td>1A</td> </tr> <tr> <td>Resistance to wind load</td> <td>B2</td> </tr> <tr> <td>Impact resistance</td> <td>2</td> </tr> <tr> <td>Height</td> <td>2100 mm</td> </tr> <tr> <td>Thermal transmittance U_D</td> <td>1.8 W/(m²K)</td> </tr> </table> <table> <tr> <td colspan="2">Radiation properties</td> </tr> <tr> <td>- Solar factor</td> <td>0.55</td> </tr> <tr> <td>- Light transmittance</td> <td>0.75</td> </tr> </table> <table> <tr> <td>Air permeability</td> <td>1</td> </tr> </table>		Watertightness	1A	Resistance to wind load	B2	Impact resistance	2	Height	2100 mm	Thermal transmittance U_D	1.8 W/(m ² K)	Radiation properties		- Solar factor	0.55	- Light transmittance	0.75	Air permeability	1
Watertightness	1A																		
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Height	2100 mm																		
Thermal transmittance U_D	1.8 W/(m ² K)																		
Radiation properties																			
- Solar factor	0.55																		
- Light transmittance	0.75																		
Air permeability	1																		
<p>Declaration of Performance made available at: http://www.AnyCo.com/DoP</p>																			

Figure 12: Example of a CE marking for an external pedestrian doorset

More examples can be found on ‘CPR Guideline for aluminium doors, windows and curtain walls’, prepared by EAA and FAECF (see Annex 4 [6]).

Annex 3 The pathway to CE marking for windows, external pedestrian doorsets and roof windows in accordance with AVCP system 3

CE with	Manufacturer TT M	Shared TT M + P	Cascading TT S
Type-testing (TT) +			
Factory Production Control (FPC) = CE marking	Task of M		
	M is responsible for ensuring the product conforms with the declaration of performance		

Key:

NB = Notified Body**M** = Manufacturer**S** = Systems provider**P** = Partner (e.g. second manufacturer), industry (e.g. hardware manufacturer) or developer

Annex 4 Bibliography

- [1] Construction Products Regulation (EU/305/2011)
- [2] Delegated Regulation (EU/157/2014) on the conditions for making a Declaration of Performance on construction products available on a website
- [3] Delegated Regulation (EU/568/2014) amending Annex V to Regulation (EU/305/2011) on the assessment and verification of constancy of performance of construction products
- [4] Delegated Regulation (EU/574/2014) amending Annex III to Regulation (EU/305/2011) on the model to be used for drawing up a Declaration of Performance on construction products
- [5] EN 14351-1: 2006+A1:2010 “Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics”
- [6] CPR Guideline for Aluminium Doors, Windows and Curtain Walls, December 2012, EAA/FAECF

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