

CPR Guide: EU Rules Practical Impact

December 2021

About Glass for Europe

Glass for Europe is the trade association for Europe's flat glass sector. Flat glass is the material that goes into a variety of end products, primarily in windows and facades for buildings, windscreens and windows for automotive and transport as well as solar energy equipment, furniture and appliances. Glass for Europe brings together multinational firms and thousands of SMEs across Europe, to represent the entire building glass value-chain. It is composed of flat glass manufacturers, AGC Glass Europe, Guardian, NSG-Group and Saint-Gobain Glass Industry, and works in association with Carlex and national partners gathering building glass processors all over Europe



Construction Products Regulation

Introduction

Regulation (EU) 305/2011, more commonly referred to as the *Construction Products Regulation* (CPR), replaces the 1989 Construction Products Directive (CPD). This new piece of legislation sets out the rules governing when and under which conditions, the **CE marking** must accompany construction products placed on the EU market. The purpose of this guide is to explain the main changes between the 'old' Construction Products Directive and the 'new' Construction Products Regulation.

- This new EU regulation therefore applies to most glass products for use in buildings and their derived products.
- All glass manufacturers, processors and building glass supply chain actors need to understand what the new legislative changes will mean for their business.

To that end, Glass for Europe has put together this **practical guide to steer you through** the new terminology and concepts and highlight what **the main changes** will be.

For ease of use the guide is divided into two parts:

- ✓ Part One General information on the CE marking for building glass / page 4
- ✓ Part Two Q&A on the main regulatory changes affecting CE marking as of 1 July 2013 / page 6

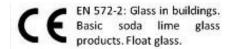


Table of Contents

PART ONE	4
BASIC PRINCIPLES OF CE MARKING	4
How does this affect glass products?	4
WHAT SHOULD I DO TO AFFIX THE CE MARKING ON MY GLASS PRODUCTS?	5
PART TWO	6
WHAT IS A DECLARATION OF PERFORMANCE?	6
WHAT INFORMATION DOES THE DECLARATION OF PERFORMANCE CONTAIN?	7
WHAT SHOULD I DO WITH MY DECLARATION OF PERFORMANCE?	11
WHERE DO I AFFIX MY CE MARKING?	12
WHAT INFORMATION DOES THE CE MARKING CONTAIN?	13
IS THERE A DEROGATION FROM CE MARKING?	15
WHAT ARE THE OBLIGATIONS OF THE DISTRIBUTOR CONCERNING THE CE MARKING?	16
WHAT ABOUT NATIONAL MARKS?	17
REFERENCE MATERIAL	19
ANNEX I – DATE OF CE MARKING AND PUBLICATION OF STANDARDS	20
ANNEX II – GLASS INDUSTRY MODEL FOR A DECLARATION FOR ONE PRODUCT ONLY	22



PART ONE



Basic principles of CE marking

- If you manufacture and/or put on the market products covered by harmonised European standards (hENs) or European Technical Assessments (ETAs), CE marking applies to you.
- By affixing the CE marking on a product, a company guarantees that the product conforms to the declared performance values and satisfies EU legislative requirements.

The CE-marked product can therefore cross national borders more easily, and compliance with national legislations, such as building codes, can be conveniently demonstrated based on the declared values.

The existing rules and procedures underpinning the CE marking were recently overhauled

because they were heavy, lacked transparency and were not always consistently applied across the EU. Change has come in the form of a harmonised **regulation** meaning that **all 27 EU countries must apply the same rules**. The regulation aims to clarify and simplify concepts and procedures and give credibility to the system.

How does this affect glass products?

- Most glass products will need to bear the CE marking because:
- Most glass products are covered by a hEN
- Exemptions from the requirement to draw up a declaration of performance are **extremely** limited

Since 2005, a number of building glass products have been subject to harmonised European standards (see list of standards), and therefore these products must bear the CE mark, except under very special conditions. This principle remains and is in fact reinforced by the new regulation, which will ensure more thorough declared performance values. Drawing up a DoP is mandatory, except in only a few exceptional cases. If this declaration is not drawn up then the CE marking should not be affixed.

implementation across the whole of Europe. Under the regulation, a Declaration of Performance (DoP) must be drawn up <u>before</u> products covered by hENs or ETAs are placed on the market. By affixing the CE marking, the company assumes responsibility for the conformity of their product with the

In addition to harmonised European standards on 'glass for use in buildings and construction works', numerous other standards exist on transformed and/or more complex products such as windows. Therefore the whole supply



chain needs to understand the new rules on CE marking

What should I do to affix the CE marking on my glass products?

Firstly, it is crucial to ensure that the product conforms to the description of the harmonised European standard. All aspects

of these hENs must be complied with. The requirements of hENs for glass products include:

- √ the product/system description
- ✓ the type testings, including durability, that may be required
- ✓ the factory production control that needs to be in place,
- ✓ the declaration of performance to be provided.

Depending on the systems of Assessment and Verification of Constancy of Performance (AVCP), notified bodies may be involved for meeting the above requirements. The applicable AVCP systems can be found in the hENs.



PART TWO

This Q&A from Glass for Europe is not meant to explain all the measures in relation to CE marking since the industry should already CE mark its products and know the basic rules. Part two of the guide simply tries to highlight the main changes due to the new European rules. Of all changes to the rules, three items are particularly relevant to glass products: the declaration of performance, affixing the CE marking and derogations.

What is a declaration of performance?

The Law

Declaration of performance (Article 4)

- 1. When a construction product is covered by a harmonised standard or conforms to a European Technical Assessment which has been issued for it, the manufacturer shall draw up a declaration of performance when such a product is placed on the market.
- 2. When a construction product is covered by a harmonised standard or conforms to a European Technical Assessment which has been issued for it, information in any form about its performance in relation to the essential characteristics, as defined in the applicable harmonised technical specification, may be provided only if included and specified in the declaration of performance except where, in accordance with Article 5, no declaration of performance has been drawn up.
- **3.** By drawing up the declaration of performance, the manufacturer shall assume responsibility for the conformity of the construction product with such declared performance. In the absence of objective indications to the contrary, Member States shall presume the declaration of performance drawn up by the manufacturer to be accurate and reliable.

What you need to know

- The declaration of conformity has been replaced by the Declaration of Performance (DoP). The DoP is required for CE marking purposes.
- The DoP sets down the information that has to be declared for CE marking on the basis of the hEN.

 Unlike the old declaration of conformity under the CPD, which guaranteed conformity and, indirectly, durability of products, the DoP only provides product performances. Manufacturers are responsible for ensuring the accuracy of the declared performances and the continuing durability of the product according to the relevant hEN. Therefore, in the standards cited in the OJEU under the CPR durability was added in the list of performances to be declared in the DoP.



What information does the declaration of performance contain?

The Law

Content of the declaration of performance (Article 6)

- 1. The declaration of performance shall express the performance of construction products in relation to the essential characteristics of those products in accordance with the relevant harmonised technical specifications.
- **2.** The declaration of performance shall contain, in particular, the following information:
- (a) the reference of the product-type for which the declaration of performance has been drawn up;

(b) the system or systems of assessment and verification of constancy of performance of the construction product, as set out in Annex V;

- The declaration of conformity no longer exists. It is replaced by the DoP, which must contain all information presented below. The DoP is required for CE marking purposes.
- The DoP must relate to a product type or a group of product types. This product type must be identified in the DoP. (See CPR Article 2, definition 9 for definition of product type).
- A product type may cover several products with the same declared performances.
 - Example of a product type: Clear float 4 mm. Note: References to product types will vary between manufacturers,
- List all relevant systems of assessment and verification of constancy of performance (AVCP).
 - ► Example: Bullet-resistant glass has characteristics which are under AVCP system 1, 3 and 4. Annealed single coated glass has characteristics which are under AVCP system 3 and 4. Mirror without safety film has characteristics which are under AVCP system 4.



(c) the reference number and date of issue of the harmonised standard or the European Technical Assessment which has been used for the assessment of each essential characteristic:

 Standard reference numbers should not be written next to each characteristic as only one hEN is applicable (only one hEN per product). This may be mentioned at the top of the declaration.

Date of the standard: The date of the standard is to be understood as the year in which the CEN ratifies the text. This may not be the same as the year in which the European Standard was published by the national standardisation body. This date can be found on the CEN website. The date of the latest version of the standard is to be included in the DoP (see Annex I).

 If a harmonised standard modification does not affect any of the declared values, the DoP with the date of the latest version of the harmonised standard can be added next to the previous one(s). If the modification affects at least one declared value, the DoP referring to the old harmonised standard should be kept in the archive for ten years..

Example:

for shared ITT.

EN 1279-5:2005; EN 1279-5:2005+A1:2008; EN 1279-5:2005+A2:2010. A1 was only a clarification of the classification of pendulum body impact resistance. A2 sets down rules

In this example, as neither of these amendments affected any declared values, under the CPR there would be no need for a manufacturer to make new assessments of characteristics. The existing DoP would still be applicable, provided that this is made clear in the reference to the hEN.



- **3.** The declaration of performance shall in addition contain:
- (a) the intended use or uses for the construction product, in accordance with the applicable harmonised technical specification;
- **(b)** the list of essential characteristics, as determined in the harmonised technical specification for the declared intended use or uses;
- **(c)** the performance of at least one of the essential characteristics of the construction product, relevant for the declared intended use or uses:
- (d) where applicable, the performance of the construction product, by levels or classes, or in a description, if necessary based on a calculation in relation to its essential characteristics determined in accordance with Article 3(3);
- **(e)** the performance of those essential characteristics of the construction product which are related to the intended use or uses, taking into consideration the provisions in relation to the intended use or uses where the manufacturer intends the product to be made available on the market;

- The intended use of all glass products is stated in the applicable hEN as follows: "glass for use in buildings and construction works". No other intended use should be mentioned. Note: for many products, the manufacturer may not know the end use application.
- See relevant hEN standards for the list of essential characteristics. See also the example in <u>Annex II</u>
- A DoP cannot be produced if the manufacturer is aiming to claim NPD (no performance determined) for all characteristics.
- Glass manufacturers have been providing this information for years.
- Glass manufacturers have been providing this information for years. Therefore, no change is required since the product's intended use is 'glass in buildings and construction works'.



- **(f)** for the listed essential characteristics for which no performance is declared, the letters 'NPD' (No Performance Determined);
- (g) when a European Technical Assessment has been issued for that product, the performance, by levels or classes, or in a description, of the construction product in relation to all essential characteristics contained in the corresponding European Technical Assessment.
- **4.** The declaration of performance shall be drawn up using the model set out in Annex III.

5. The information referred to in Article 31 or, as the case may be, in Article 33 of Regulation (EC) No 1907/2006, shall be provided together with the declaration of performance.

- Glass manufacturers have been using 'NPD' for many years. Therefore, no change is required.
- With very few exceptions, glass products are covered by harmonised European Norms rather than European Technical Assessments.
- On 21/02/2014, a delegated act on amending Annex III on the model to be used for drawing up a declaration of performance on construction products was signed. The model shown in Annex II of these guidelines is conforming to this delegated act.
- This new model requires to indicate the number of all notified bodies involved in the type tests, even for performances under AVCP system 3.
- Regulation (EC) No 1907/2006 is the REACH regulation. Final flat glass products put on the market by Glass for Europe's member companies are not subject to registration or preregistration and do not require to be accompanied with safety data sheet unless they contain a concentration of SVHC of above 0.1% by weight. Under the current status of substances of very high concern (SVHC) and to the best of Glass for Europe's knowledge, none of the flat glass products made available on the market currently contain SVHC in such quantities.
- Basic requirement for construction works N°3: dangerous substances will have to be assessed in the framework of the DoP when the mandate for glass in building products (M135) will have been revised. In the meantime, nothing has to be declared.



What should I do with my declaration of performance?

The Law

Supply of the Declaration of Performance (Article 7)

1. A copy of the declaration of performance of each product which is made available on the market shall be supplied either in paper form or by electronic means.

However, where a batch of the same product is supplied to a single user, it may be accompanied by a single copy of the declaration of performance either in paper form or by electronic means.

- **2.** A paper copy of the declaration of performance shall be supplied if the recipient requests it.
- **3.** By way of derogation from paragraphs 1 and 2, the copy of the declaration of performance may be made available on a web site in accordance with conditions to be established by the Commission by means of delegated acts in accordance with Article 60. Such conditions shall, inter alia, guarantee that the declaration of performance remains available at least for the period referred to in Article 11(2).
- **4.** The declaration of performance shall be supplied in the language or the languages required by the Member State where the product is made available.

- The DoP must be made available to the recipient of the construction product. Electronic means and websites, in particular, are recognised as a valid way to provide DoP (see Delegated Act No 157/2014). Information by electronic means is well established in many industries and often the method preferred communication by customers.
- The delegated act referred to in this article was approved as Commission Delegated Regulation (EU) No 157/2014 on 30/10/2013.



Where do I affix my CE marking?

The Law

Rules and conditions for the affixing of CE marking (Article 9)

1. The CE marking shall be affixed visibly, legibly and indelibly to the construction product or to a label attached to it. Where this is not possible or not warranted on account of the nature of the product, it shall be affixed to the packaging or to the accompanying documents.

What you need to know

No change in comparison to the CPD. There is still a desire from some authorities or voluntary certification schemes for the CE marking to be printed on the glass. However, such requirements cannot be legally imposed on manufacturers. As it is not practical for the CE marking to be applied directly to the glass, it is common practice for the CE marking to be affixed to the sticker, the packaging or other accompanying documents. The information accompanying the CE marking may be separated and placed in different locations.



What information does the CE marking contain?

The Law

Rules and conditions for the affixing of CE marking (Article 9)

2. The CE marking shall be followed by the two last digits of the year in which it was first affixed,

... the name and the registered address of the manufacturer, or the identifying mark allowing identification of the name and address of the

... the unique identification code of the product-type,

manufacturer easily and without any ambiguity,

- This provision refers to a product type and not to an individual glass product. The year in which the CE marking was first affixed for a product type can be found <u>here</u>. However, a company starting production of this product type later must affix, the two last digits of the year in which the production was started.
 - ▶ For example, CE marking of coated glass was possible in 2005 and mandatory in 2006, therefore the CE mark should be followed by 05 or 06 regardless of the exact coating, for those companies which were producing at that time. A company starting the production of CE marked coated glass in 2013 should affix 13.
- No change compared to CPD.
- It can be a code, a trade name or any other way to identify the product (e.g. alphanumerical code, barcode or QR code). The information provided should be sufficiently complete so that the declared characteristics can be found without any ambiguity.
 - Examples of unique identification codes:
 - YZ1234WU7
 - Superfloat extra clear 4 mm
 - Best IGU 4mm Superfloat 16mm argon 90% - 4 mm Bestcoated Low-E face 3.
- ... the reference number of the declaration of performance,
- ... the level or class of the performance declared,
- It may be the same as the unique identification code (see CPR whereas 26).
- This will be same as in the DoP.



... the reference to the harmonised technical specification applied,

 The date is not required here, full information is provided on the DoP. Furthermore, no reference is needed to a possible amendment or corrigendum.

- ... the identification number of the notified body, if applicable, and
- This is only applicable to glass products under AVCP system 1.
- ... the intended use as laid down in the harmonised technical specification applied.
- The number of the certificate does not need to be indicated.
- **3.** The CE marking shall be affixed before the construction product is placed on the market. It may be followed by a pictogram or any other mark notably indicating a special risk or use.
- The harmonised technical specification states that the intended use is: "Glass for use in buildings and construction works".
- No change compared to the CPD and no pictogram is necessary for glass products.



Is there a derogation from CE marking?

The Law

Derogations from drawing up a declaration of performance (Article 5)

By way of derogation from Article 4(1) and in the absence of Union or national provisions requiring the declaration of essential characteristics where the construction products are intended to be used, a manufacturer may refrain from drawing up a declaration of performance when placing a construction product covered by a harmonised standard on the market where:

- (a) the construction product is individually manufactured or custom-made in a non-series process in response to a specific order, and installed in a single identified construction work, by a manufacturer who is responsible for the safe incorporation of the product into the construction works, in compliance with the applicable national rules and under the responsibility of those responsible for the safe execution of the construction works designated under the applicable national rules'.
- (b) the construction product is manufactured on the construction site for its incorporation in the respective construction works in compliance with the applicable national rules and under the responsibility of those responsible for the safe execution of the construction works designated under the applicable national rules;
- (c) the construction product is manufactured in a traditional manner or in a manner appropriate to heritage conservation and in a non-industrial process for adequately renovating construction works officially protected as part of a designated environment or because of their special architectural or historic merit, in compliance with the applicable national rules.

- Non-series does not mean production of small quantities. All the conditions listed in Article 5 must be met to qualify as a non-series and to be exempted from CE marking.
 - ▶ Example: Although bullet-resistant glass products may be produced in small quantities by a specific producer to meet a bespoke order, it does not satisfy all the requirements of article 5a. Therefore, the derogation would not apply to such products.
- Not applicable to glass products for buildings and construction works.
- May be applicable for some specific applications.
 - Examples: traditional lead light, copper light or some types of curved glass or blown glass.



What are the obligations of the distributor concerning the CE marking?

The law

Obligations of distributors (Article 14)

5. Distributors shall, further to a reasoned request from a competent national authority, provide it with all the information and documentation necessary to demonstrate the conformity of the construction product with the declaration of performance and compliance with other applicable requirements in this Regulation in a language which can be easily understood by that authority. They shall cooperate with that authority, at its request, on any action taken to eliminate the risks posed by construction products which they have made available on the market.

What you need to know

when (and only when) there is a request from a competent national authority (market surveillance or relevant Ministry) the distributor shall pass on the request to the manufacturer. This latter shall provide the necessary document/information to the distributor who will pass it to the authority. There is no need for the distributor to have all documents in advance (TT, technical files,...) in his own files. Only the DOP and the CE marking label are requested.



What about national marks?

The Law

Whereas 33

The CE marking should be the only marking of conformity of the construction product with the declared performance and compliance with applicable requirements relating to Union harmonisation legislation. However, other markings may be used, provided that they help to improve the protection of users of construction products and are not covered by existing Union harmonisation legislation.

General principles and use of CE marking (Article 8)

3. For any construction product covered by a harmonised standard, or for which a European Technical Assessment has been issued, the CE marking shall be the only marking which attests conformity of the construction product with the declared performance in relation to the essential characteristics, covered by that harmonised standard or by the European Technical Assessment.

In this respect, Member States shall not introduce any references or shall withdraw any references in national measures to a marking attesting conformity with the declared performance in relation to the essential characteristics covered by a harmonised standard other than the CE marking.

What you need to know

- The spirit of the law is that all other marks that cover the same areas as the CE marking are banned. This is meant to ensure the free circulation of construction products throughout the single market.
- Energy labels and ecolabels are examples of permitted voluntary markings.
- Other national third-party marks, which generally duplicate some of the requirements of the CE marking, should not be applied to glass products covered by a hEN.

What you need to know

 It must be noted that the CPR not only prohibits national restrictions on the placing on the market of CE marked construction products, it also prohibits restrictions on the use of these products.



- **4.** A Member State shall not prohibit or impede, within its territory or under its responsibility, the making available on the market or the use of construction products bearing the CE marking, when the declared performances correspond to the requirements for such use in that Member State.
- **5.** A Member State shall ensure that the use of construction products bearing the CE marking shall not be impeded by rules or conditions imposed by public bodies or private bodies acting as a public undertaking, or acting as a public body on the basis of a monopoly position or under a public mandate, when the declared performances correspond to the requirements for such use in that Member State.



Reference material

REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2011

laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0005:0043:EN:PDF

Disclaimer

This guide has been produced and researched by Glass for Europe. Whilst every effort has been made to ensure the accuracy of all information provided, Glass for Europe does not accept responsibility for errors or omissions.



Annex I – Date of CE marking and publication of standards

No. of Standard	Product	Start Date CE Marking*	Date of Publication**
EN 572-9	Basic soda lime silicate glass ¹	06	EN 572-9:2004
EN 1036-2	Mirrors	10	EN 1036-2:2008
EN 1096-4	Coated glass	06	EN 1096:2004
	_		EN 1279-5:2005 + A2:2010
			The amendments do not affect
EN 1279-5	Insulating glass units	07	the declared characteristics.
	Heat strengthened soda lime		
EN 1863-2	silicate glass	06	EN 1863-2:2004
	Thermally toughened soda lime		
EN 12150-2	silicate safety glass	06	EN 12150-2:2004
	Heat-soaked thermally-		
	toughened soda lime silicate		
EN 14179-2	safety glass	07	EN 14179-2:2005
			EN 14449:2005 + AC:2005
			There is nothing to explain as
EN 44440	Laminated glass and laminated	07	the CE marking started after the
EN 14449	safety glass	07	corrigendum.
EN 1748-1-2	Borosilicate glass Glass ceramics	06 06	EN 1748-1-2:2004
EN 1748-2-2		06	EN1748-2-2:2004
EN 12337-2	Chemically strengthened soda lime glass	06	EN 12337-2:2004
EN 12331-2	Thermally toughened	00	EN 12337-2.2004
EN 13024-2	borosilicate safety glass	06	EN 13024-2:2004
EN 14178-2	Basic alkaline earth silicate glass	06	EN 14178-2:2004
LIV 14170 Z	Thermally toughened alkaline	00	LIV 14170 2.2004
EN 14321-2	earth silicate safety glass	07	EN 14321-2:2005
EN 1051-2	Glass blocks and pavers	10	EN 1051-2:2007
2.11.00.2	Heat soaked thermally		211 1001 212001
EN 15682-2	toughened alkaline earth silicate	(15)***	EN 15682-2:2013
	safety glass	()	
	Thermally toughened soda lime		
EN 15683-2	silicate channel shaped safety	(15)***	EN 15683-2:2013
	glass		

* For CE marking on sticker or invoice only.

Note that the dates mentioned in this table are the dates from which CE marking was mandatory (date of withdrawal of the possible national standard on the same subject). CE marking was already possible one year before (date of coexistence of this possible national standard with the new EN standard). Therefore, some companies may have started the CE marking of their product the year before that indicated in the table, and so can indicate that year on their CE marking label.

**For DoP only.

*** citation in the OJEU expected.

¹ EN 572-9 covers the following soda lime silicate glass products: float glass, polished wire glass, drawn sheet glass, patterned glass, wired patterned glass, and wired and unwired channel shaped glass.



Event	Description	Action
Date of Availability (DAV) of hEN ³		
Notification of the hEN to the EC	Official notification by CEN, by letter to the EC, that the hEN fulfils the conditions necessary for presumption of conformity with the provisions of Articles 2 and 3 of the CPD. The Commission will inform the Member States.	CEN / EC
Publication of the hEN reference in the OJEC	The Commission shall publish the reference of the hEN in the "C" series of the Official Journal of the European Communities.	EC
Date of Applicability	The publication notice in the OJEC will include the date of applicability of the standard as an hEN according to article 4(2)a of the Directive 89/106/EEC. This will, by default, be nine months after the DAV of the hEN, unless otherwise agreed by the SCC.	EC
Publication of the hEN reference by national authorities	Member States have an obligation to officially publish the reference to the national standard transposing the hEN, although this is not a precondition for the applicability of the standard. The form of publication will be according to national rules.	MS
Date of Withdrawal (DOW) of national standards	The latest date by which national standards conflicting with the hEN have to be withdrawn by CEN members. The date shall be stated in the foreword of every definitive hEN and shall be published in the OJEC along with the reference. Member States shall give legal validity to this date in a manner appropriate to their national legal system. This will be , by default, one year after the date of applicability of the hEN, unless otherwise agreed by SCC).	EC/ CEN/ NSBs
Date of withdrawal of all conflicting national provisions	At the DOW associated with the hEN, Member States have to terminate the validity of all conflicting national provisions allowing products to be placed on the market.	MS



Annex II – Glass industry model for a declaration for one product only

DECLARATION OF PERFORMANCE				
ABC123*				
Coated float glass 4 mm				
intended to be used in buildings and	construction work			
AnyCo Ltd,				
PO Box 21				
B-1050 Brussels				
EN 1096-4: 2013				
Notified Bodies: 0123, 4567, 89	01. 2345			
Essential characteristics AVCP systems Performance				
Safety in the case of fire				
Resistance to fire	1	NPD		
Reaction to fire	3, 4	A1		
External fire performance	3, 4	NPD		
Safety in use				
Bullet resistance	1	NPD		
Explosion resistance	1	NPD		
Burglar resistance	3	NPD		
Pendulum body impact resistance	3	NPD		
Resistance against sudden temperature changes and				
temperature differentials (K)	4	40		
Characteristic bending strength (MPa)	4	45		
Protection against noise				
Direct airborne sound reduction (dB)	3, 4	30 (-2, -2)		
Thermal properties	•			
Declared emissivity ε _d	3	0,01		
U-value	3	NPD		
Radiation properties				
light transmittance тv	3	0,78		
light reflectance ρv / ρ'v	S	0,17/0,18		
Solar energy characteristics				
Solar direct transmittance те		0,49		
Solar direct reflectance ρe / ρ'e	3	0,43/0,36		
Total solar energy transmittance g/g'		NPD/NPD		
Durability	3	С		

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

This declaration of performance is issued under the sole responsibility of the manufacturer. Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature

^{*)} the code can be a product descriptor



Glass industry model for a declaration for a range of products

,				
DECLARATION OF PERFORMANCE				
	ABC123*			
	Coated float glass intended to be used in buildings and construction work			
		na constructi	on work	
	nyCo Ltd, O Box 21			
	50 Brussels			
	N 1096-4: 201	13		
	1 1000 41 20			
Notified Bodies	0123, 4567,	8901, 2345		
	AVCP			
Essential characteristics	systems	LE 4 mm	PY 6 mm	SC 8 mm
Safety in the case of fire	•	•	•	
Resistance to fire	1	NPD	NPD	NPD
Reaction to fire	3, 4	A1	A1	A1
External fire performance	3, 4	NPD	NPD	NPD
Safety in use	•	-		
Bullet resistance	1	NPD	NPD	NPD
Explosion resistance	1	NPD	NPD	NPD
Burglar resistance	3	NPD	NPD	NPD
Pendulum body impact resistance	3	NPD	NPD	NPD
Resistance against sudden temperature				
changes and temperature differentials (K)	4	40	40	40
Characteristic bending strength (MPa)	4	45	45	45
Protection against noise	•			•
Direct airborne sound reduction (dB)	3, 4	30 (-2, -2)	32 (-1, -2)	33 (-1, -2)
Thermal properties	•	•	•	
Declared emissivity ε _d	0.4	0,01	0,89	0,86
U-value	3, 4	NPD	5,7	5,5
Radiation properties				
light transmittance τν		0,78	0,66	0,51
light reflectance ρv / ρ'ν	3	0,17/0,18	0,31/0,30	0,18 /0,17
Solar energy characteristics				
Solar direct transmittance те		0,49 0,43/0,36	0,65	0,44
Solar direct reflectance ρe / ρ'e	3	0,43/0,36 NPD/NPD	0,25/0,22	0,14 /0,17
Total solar energy transmittance g/g'		INI D/INFD	0,68/0,67	NPD/0,54
Durability	1, 3, 4	С	А	В
<u> </u>		1		1

The performance of the product identified is in conformity with the declared performance above. This declaration of performance is issued under the sole responsibility of the manufacturer. Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	signature

^{*)} the code can be a product descriptor