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CPR GUIDELINE FOR ALUMINIUM DOORS, WINDOWS AND CURTAIN WALLS

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Introduction

This guideline was prepared by the European Aluminium Association AISBL (EAA) as well as the Federation of European Window and Curtain Walling Manufacturer's Associations (FAECF) and intends to assist manufacturers fulfilling Construction Product Regulation's (CPR) requirements.

The CPR is removing technical barriers to trade for construction products. These barriers exist due to the different rules for testing and attestation of conformity in the Member States for the same product. The CPR focuses on establishing common rules in the European market and rectifies the inconsistencies of the Construction Product Directive (CPD).

On the following table the core differences between the CPD and the CPR are given:

Table: Core differences/changes between CPD and the CPR

CPD	CPR
6 Essential Requirements (ERs)	7 Basic Requirements for Construction Works (BRCWs) 7 BRCWs = 6 ERs + Sustainable use of natural sources
Declaration of Conformity (DoC)	Declaration of Performance (DoP)
Attestation of Conformity (AoC)	Attestation and Verification of Constancy of Performance (AVCP) System 2 was deleted
European Organisation of Technical Approvals (EOTA)*	Group of Technical Assessment Bodies (most probably will remain the EOTA name)*
European Technical Approvals (ETAGs)* Common Understanding Approaches (CUAPs)*	European Assessment Documents (EADs)*
European Technical Approval (ETA)*	European Technical Assessment (ETA)*
Guidance Paper M describing Simplified Procedures (Sharing & Cascading)	Simplified procedures are in the CPR now

*Not of the interest of window, door and curtain walling manufacturer

CPR will enter into complete force by the 1st of July 2013.

Note 1: The entire guideline has an informative role. In case additional information is need you are requested to consult the OJEU Regulation number 305/2011 of the European Parliament and the Council of 9th March 2011 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:088:0005:0043:EN:PDF>).

Note 2: All information placed below are informative. Window, door and Curtain Walling manufacturers are able to follow the procedure they consider as the most appropriate to fulfil the requirements of this European regulation.

Note 3: Manufacturers are those who fabricate the curtain walling, windows and doors and supply them for installation.

Declaration of Performance (DoP)

To fulfil the CPR requirements the manufacturer has to prepare a document called Declaration of Performance (DoP). By drawing up a DoP the manufacturer assumes responsibility for the declared performances. In parallel Member States shall presume that information which is included to be accurate and reliable.

This document shall be prepared after the product is made available on the market in the accepted language(s) by the Member State.

Products of the same batch which are supplied to a single user can be accompanied by a single DoP copy. Manufacturers can supply the customer with a copy of the DoP either in paper form or by electronic means. When requested by the customer, a paper copy must be supplied.

Website: To write further details after the discussions with the EC end Nov 2012

According to the CPR a DoP has to be prepared in most cases, as Union or National provisions exist and require the declaration of essential characteristics where the product is intended to be used.

Table: main DoP content

DoP number, Unique identification code of the product type	DRAFT
Reference of the product type	
Name, registered name or trade mark and contact address of the manufacturer	
Assessment and Verification of Constancy of Performance (AVCP) systems (Refer to relevant harmonised standard)	
Reference to the relevant harmonised standard code(s) dated	
Intended use(s)	
For the intended use(s) a list of essential characteristics (all):	
The performance (expressed in level / classes / description) of at least one essential characteristic	
Essential characteristics with no declared performance, the letters 'NPD' (no performance determined)	
Name and id number of the involved notified body(ies) if applicable	

According to the CPR the manufacturer is obliged to declare as a minimum the performance of one essential characteristic.

Where the manufacturer wishes to declare a lower performance than the one reached during testing, or no performance at all [NPD – No Performance Determined], for an essential characteristic they are allowed so to do.

The DoP must be retained by the manufacturer for a period of 10 years after the construction product is placed on the market.

Technical documentation

Manufacturers shall, as the basis for the DoP, draw up a technical documentation report describing all the relevant elements related to the required system of AVCP. This report shall contain:

- The reports of test or other assessment methods (calculation) allowing to assess the performance of the products for all the essential characteristics the manufacturer intends to declare, and as a result to determine the product-type, performed by a Notified Body (AVCP system 1 or 3) or by the manufacturer (AVCP system 4).
- The sample testing made under the initiative of the manufacturer.
- As the majority of metal window manufacturers are SMEs or microenterprises and several of them are using 'Cascading' or 'Sharing', it is important to prove within the technical documentation that the product they placed on the market is in line with the product which was tested during Type Testing either by the system provider or the manufacturer accordingly. For this purpose keeping detailed Factory Production Control according to the relevant harmonised standard(s) is highly recommended.
- The records are to also include: Registry of complaints, of non-conforming products, and of product recalls, and the corrective measures implemented to prevent recurrence of non-conformities.

Technical documentation shall be retained by the manufacturer to enable them to demonstrate the conformity of the construction product with the declaration of performance, should a reasoned request be received from a competent national authority responsible for market surveillance.

It is advised to develop the technical documentation in the same language used by the manufacturer while developing documentation for internal use, such as the Factory Production Control manual, which should be in one of the 'official and working' EU languages.

It is advised that the manufacturer shall develop technical documentation(s) for different product families (e.g. windows/doors for external usage without fire resisting characteristics; curtain walling, openable windows and doors for external usage with fire resisting characteristics; internal pedestrian doors without fire resisting characteristics; internal pedestrian doors with fire resisting characteristics; etc) in a generic way, which can be used as a common document for each of the product families. Within this document(s) reference to the content which was addressed earlier (see above bullets) should be Included.

Where a significant change is made in the manufacturing process(es) the manufacturer shall produce technical documentation for the new process(es) which will accompany the DoP of products which are produced under the new process(es).

The relevant technical documentation must be kept by the manufacturer for a 10 year period together with the DoP, after the construction product is placed on the market.

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CE marking

By affixing or having affixed the CE mark the manufacturer is indicating that they take responsibility for the conformity of the construction product with the declared performance as well as with all the applicable requirements defined in the CPR and all other additional related regulations.

The CE mark:

- Cannot be affixed if a DoP has not been drawn up.
- Shall be affixed before the product is placed on the market.
- Shall be the only mark which attests conformity of the construction product with the declared performances in relation to the essential characteristics covered by relevant harmonised standards.

The CE mark has to follow the product and can be offered in one of the following three ways:

- On the construction product
- On the packaging
- With the accompanying documents

Table: main CE marking content

CE image	DRAFT
Last two years of the year it was affixed	
Name, registered name or trade mark and contact address of the manufacturer	
Unique identification code of the product type	
Reference DoP number	
Reference hEN codes dated	
The same performance for the essential characteristic(s) as in the DoP	
Intended use(s)	
For the intended use(s) a list of essential characteristics (all):	
id number of the involved notified body(ies) if applicable	

Essential characteristics with no declared performance [NPD] can be omitted from the CE mark.

The CE mark shall be offered in paper form and does not have to be kept in the archive of the manufacturer.

It is advisable to keep the CE mark in the same language as the DoP.

Note: Where a CE mark can be applied to a product no other National Marks may be applied.

DoP and CE marking: Reducing documentation

Based on the required content and manufacturer's preference, there is the option to combine the DoP and the CE mark on the same page. In such a case the document will need to fulfil the obligations of both documents and be offered for both uses.

Knowing that on most buildings more than one Door(s) and/or window(s) are offered in contracts, the manufacturer may reduce the number of documents by declaring DoP(s) and/or CE mark(s) on one document, provided all required information is declared.

It is essential that all products being delivered are accompanied by the required DoP/CE mark documents, and that the DoP/CE mark documents only relate to those products being delivered.

Harmonised Standards (hEN's)

Harmonised standards (hENs) shall be established by the European standardisation bodies on the basis of requests issued by European Commission after having consulted the Standing Committee on Construction. The European Commission shall assess the conformity of hENs by the standardisation bodies with the relevant mandates and will update the list of hENs with the ones which were approved by publication in the [Official Journal of the European Union \(OJEU\)](#). After the publication of the hENs in the OJEU a coexistence period is identified to allow manufacturers prepare their organisations and fulfil these new requirements accordingly.

By the date of publication of this guideline two relevant harmonised standards are publicly available and can be purchased by standardisation bodies; and another two are under development (prEN) and are expected to be published in the future.

hEN 14351-1: 'Windows and doors - Product standard, performance characteristics - Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics'

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hEN 14351-1 identifies material independent performance characteristics that are applicable to windows (including roof windows, roof windows with external fire resistance and French windows), external pedestrian doorsets (including unframed glass doorsets, escape route doorsets) and screens.

hEN 13830: 'Curtain walling - Product standard'

hEN 13830 specifies characteristics of curtain walling and provides technical information on the varying performance requirements which apply throughout Europe and the test criteria and sequence of testing to which the product is subjected, in order to demonstrate conformity. Reference is made to other European Standards related to the performance and testing of curtain walling and, where appropriate, attention is drawn to European Standards which relate to products incorporated into curtain walling.

prEN 14351-2: 'Windows and doors - Product standard, performance characteristics - Part 2: Internal pedestrian doorsets without resistance to fire and /or smoke leakage characteristics'

prEN 14351-2 shall identify material independent performance characteristics that are applicable to internal pedestrian doorsets without the resistance to fire and/or smoke leakage characteristics intended to be used internally in construction works.

prEN 16034: Pedestrian doorsets, industrial, commercial, garage doors and openable windows - Product standard, performance characteristics - Fire resisting and/or smoke control characteristics

prEN16034 shall identify material independent, safety and performance requirements applicable to all fire resisting and/or smoke control products intended to be used in fire and/or smoke compartmentation and/or escape routes.

Further information are available at www.cen.eu

Other important issues

Further to the previous remarks, it is essential to define some additional remarks which are dealing with the CPR:

- Where applicable a REACH safety data sheet: shall be supplied in an official language of the Member State when the substance, mixture or product is made available on the market, unless the Member State concerned is governed by other regulations. It shall be supplied together with the DoP using the same system and a reference to the document shall be included in the DoP.
- Instructions and safety information: Whenever necessary, manufacturers must ensure that the product is accompanied by instructions and safety information in a language determined by the Member State concerned, which can be easily understood by users.
- Economic operators: The manufacturer is required to be able to provide, should a Market Surveillance inspection be carried out, a list with details of the economic operators they have supplied product to or been supplied product by.
- Maintenance: Products will require regular cleaning and maintenance to achieve their anticipated life. The location, use and associated atmospheric conditions will have a considerable bearing on the frequency of such cleaning and maintenance inspection cycles, as will the materials and finishes inherent in the product. Failure to undertake this can considerably reduce the life of materials, components and finishes.

For this reason it is strongly recommended that a method statement covering specific recommendations for routine maintenance, cleaning including suitable cleaning agents, and any lubrication/adjustments to moving parts is prepared for each project taking guidance from the applicable hENs.

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Annex

Within the annex different examples can be found available covering alternative DoP and CE marking examples a manufacturer may follow.



Declaration of Performance



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No DOEI30GD001

Fire resisting door

MWM ltd - Metal Window Manufacturer ltd / PO Box 21, B-1050, Brussels

Essential Characteristics	Performance	Notified Body	AVCP	hEN
	EN 16034:2013			
Resistance to Fire:	EI 30	[3]	System1	EN 16034:2013
Smoke leakage:	S _m	[5]		
Self-closing:	C5	[4]		
	EN 14351-1:2010			
Watertightness Non-shielded	6B	[1]	System3	EN 14351-1:2010
Dangerous substances	Not relevant	-		
Resistance to wind load				
- Test pressure P1	5	[1]		
- Frame deflection	A	[1]		
Impact resistance				
Drop height [mm]	700	[1]		
Load bearing capacity of safety devices	NPD	-		
Height [mm]	2200	-		
Ability to release	NPD	-		
Operating forces	NPD	-		
Acoustic performance [dB]	38	-		
Thermal transmittance [W/m²K]	1,2	-		
Radiation properties				
Solar factor (g)	0,58	-		
Light transmittance (τ _v)	0,45	-		
Air permeability	4	[2]		

[1] Notified Body A (9999) · [2] Notified Body B (8888) · [3] Notified Body C (7777) · [4] Notified Body D (6666) · [5] Notified Body D (6666)

System 1: Notified Bodies performed the determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product; initial inspection of the manufacturing plant and of factory production control and continuous surveillance; under System 1 and issued certificate of constancy of performance
System 3: Notified Bodies performed the determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product; and issuing of the test/calculation reports under System 3

The performance of the products identified with the above unique identification codes are in conformity with the relevant declared performances.

This declaration of performance is issued under the sole responsibility of Metal Window Manufacturer ltd / PO Box 21, B-1050, Brussels

Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature



13

Project code: 00F202
Metal Window Manufacturer Ltd / PO Box 21, B-050 Brussels

Project code: 00F202
Metal Window Manufacturer Ltd / PO Box 21, B-050 Brussels

Products list

[illegible][illegible]Figure 4: *Bar chart showing the distribution of the number of active nodes*

Name and function

Place and date of issue

Signature _____



Declaration of Performance

Project code: 00V2012

[illegible][illegible]

Name and function.	Place and date of issue	Signature



Declaration of Performance

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Metal Window Manufacturer Ltd / PO Box 21, B-1050, Brussels

Essential Characteristics	Product A			Product B			hEN		
	No CWSH150PP			No CWSH1E16050PP					
	Curtain Walling			Fire resisting Curtain Walling					
	Performance	Notified Body	AVCP	Performance	Notified Body	AVCP			
Reaction to fire of profile	NPD	-	3	A1	[1]	1	EN 13830:2013		
Fire resistance	NPD	-	3	EI 60	[5]	3			
Fire propagation	NPD	-		EI 60	[5]				
Watertightness	R4	[1]		R4	[1]				
Dead load resistance (0,6 kN/m2): [mm]	1,2	[2]		1,2	[2]				
Wind load resistance (1,0 kN/m2): d for H<3000mm [mm]	9,1	[2]		9,1	[2]				
Snow load resistance (0,90 kN/m2): d for L<3000mm [mm]	2,2	[2]		2,2	[2]				
Internal impact resistance	I1	[1]		I1	[1]				
External impact resistance	NPD	-		NPD	-				
Horizontal live load resistance (1,0 kN/m): d for L<3000mm [mm]	8	[4]		8	[4]				
Seismic resistance – Serviceability	NPD	-		NPD	-				
Seismic resistance – Safety in use	NPD	-		NPD	-				
Direct airborne sound insulation	NPD	-		NPD	-				
Flanking sound transmission	NPD	-		NPD	-				
Thermal transmittance U [W/(m²K)]	1,6	-		1,6	-				
Air permeability	NPD	-		NPD	-				
Solar factor	NPD	-		NPD	-				
Light transmittance	NPD	-		NPD	-				
Durability of watertightness:									
- of gaskets against weathering, ageing and UV action	G63554	[1]		G63554	[1]				
- of sealant against weathering, ageing and UV action	25 LM	[3]		25 LM	[3]				
Durability of thermal transmittance:									
- of low E coated glass against ageing and UV action	Pass	[1]		Pass	[1]				
- of glazing against ageing and UV action	Pass	[1]		Pass	[1]				
Durability of air permeability:									
- of gaskets against weathering, ageing and UV action	G63554	[1]		G63554	[1]				
- of sealant against weathering, ageing and UV action	25 LM	[1]		25 LM	[1]				

[1] Notified Body A (9999) - [2] Notified Body B (8888) - [3] Notified Body C (7777) - [4] Notified Body D (6666) - [5] Notified Body D (5555)

- System 1 Notified Bodies performed the determination of the product type on the basis of type testing (including sampling), type calculation, tabulated values or descriptive documentation of the product; initial inspection of the manufacturing plant and of factory production control and continuous surveillance; under System 1 and issued certificate of constancy of performance.

- System 3 Notified Bodies performed the determination of the product type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product; and issuing of the test/calculation reports under System 3.

The performance of the products identified with the above unique identification codes are in conformity with the relevant declared values of performance.

This declaration of performance is issued under the sole responsibility of Metal Window Manufacturer Ltd / PO Box 21, B-1050, Brussels.

Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature

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Declaration of Performance



No DOEGD001

External door

MWM ltd - Metal Window Manufacturer ltd / PO Box 21, B-1050, Brussels

Essential Characteristics	Performance	AVCP	hEN
Watertightness Non-shielded	6B	System3	EN 14351-1:2010
Dangerous substances	Not relevant		
Resistance to wind load - Test pressure P1 - Frame deflection	5 A		
Impact resistance Drop height	700 (mm)		
Load bearing capacity of safety devices	NPD		
Height	2.200 (mm)		
Ability to release	NPD		
Operating forces	NPD		
Acoustic performance	38 dB		
Thermal transmittance	1,2 (W/m²K)		
Radiation properties Solar factor (g)	0,58		
Light transmittance (τ _v)	0,45		
Air permeability	4		

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Notified Bodies: [1] Notified Body A (9999) - [2] Notified Body B (8888)

System 3: Notified Bodies performed the determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product; and issuing of the test/calculation reports under System 3

The performance of the products identified with the above unique identification codes are in conformity with the relevant declared performances.

This declaration of performance is issued under the sole responsibility of Metal Window Manufacturer ltd / PO Box 21, B-1050, Brussels
signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature

Declaration of Performance

No WM_W_001

Window

WM ltd - Window Manufacturer ltd / PO Box 21, B-1050, Brussels



Essential Characteristics	Performance	Notified Body	AVCP	hEN
Watertightness Non-shielded	6B	[1]	System3	<div>DRAFT</div> <div>EN 12542-1:2010</div>
Dangerous substances	Not relevant	-		
Resistance to wind load - Test pressure P1	5	[1]		
- Frame deflection	A	-		
Load bearing capacity of safety devices	NPD	-		
Operating forces	NPD	-		
Acoustic performance	38 dB	-		
Thermal transmittance	1,2 (W/m ² K)	-		
Radiation properties Solar factor (g)	0,58	-		
Light transmittance (τ _v)	0,45	-		
Air permeability	4	[2]		

[1] Notified Body A (9999) · [2] Notified Body B (8888) · [3] Notified Body C (7777) · [4] Notified Body D (6666) · [5] Notified Body D (5555) · [6] Notified Body D (4444)

System 3: Notified Bodies performed the determination of the product-type on the basis of type testing (based on sampling carried out by the manufacturer), type calculation, tabulated values or descriptive documentation of the product; and issuing of the test/calculation reports under System 3

The performance of the products identified with the above unique identification codes are in conformity with the relevant declared performances.

This declaration of performance is issued under the sole responsibility of Metal Window Manufacturer ltd / PO Box 21, B-1050, Brussels

Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature

Declaration of Performance

No DOE/30GD001

Window and Door Manufacturer Ltd
PO Box 21,
B-1050, Brussels

LOGO

External Doors

[illegible]

The performance of the product identified with the above unique identification code is in conformity with the relevant declared performances. This declaration of performance is issued under the sole responsibility of Metal Window Manufacturer Ltd / PO Box 21, B-1050, Brussels
Signed for and on behalf of the manufacturer by:

Name and function	Place and date of issue	Signature



Window and Door Manufacturer Ltd
PO Box 21, B-1050, Brussels

No DOE/EI30GD001-4

EN 14351-1:2006+A1:2010

Door

Watertightness	3A
Resistance to wind load	B1
Height [mm]	2100
Thermal transmittance (U_D) [W/m ² K]	1,8
Solar factor (g) [%]	60
Light transmittance (τ_v) [%]	72
Air permeability	1



Bibliography

- CPD to CPR Quick guide, CEPMC, 2012
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