

CE Marking

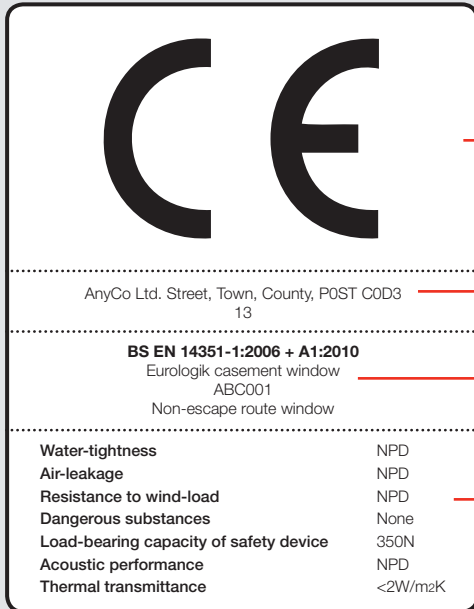
A guide for window and door fabricators



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What is CE Marking?

An overview for window and door fabricators



CE Mark logo

Manufacturer name and address, and year of manufacture

Harmonised standard, identification, serial number and intended use

Declared performance

See page 10 for an in-depth look at CE labels

From 1 July 2013 it will become mandatory for manufacturers of windows and doors to apply a CE Marking to their products

What is CE Marking?†

A CE Mark is a mandatory conformity marking for products placed on the market in the European Economic Area (EEA). A CE Marking indicates to a customer that a product conforms to specific European technical standards, known as harmonised European Norms (hEN).

Do I need to CE Mark my windows and doors?

Yes. From 1 July 2013 it will become mandatory for manufacturers of construction products, including windows and doors, to apply a CE Marking to their products.

This requirement is part of the Construction Products Regulation 2011 (CPR), which replaces the Construction Products Directive (CPD).

Who is responsible for CE Marking?

Under Construction Products Regulation, the manufacturer* of a product must apply the CE Marking. The 'manufacturer' is classed as the company or individual that creates the finished 'construction element'. In the case of windows and doors, this means the person who supplies the frame and glass.

From 1 July 2013, therefore, all fabricators will need to apply CE Markings to their products. Failure to do so will be a criminal offence.

Why is CE Marking becoming mandatory?

The aim of Construction Products Regulation is to harmonise compliance with European standard EN14351-1 across the EU.

What do I need to do?

To comply with the new rules, you will need to:

- ▶ Add a CE Mark to every window or door you manufacture
- ▶ Provide a Declaration of Performance (DoP) with each product as proof that it meets the required standards

The CE Mark must be visible, legible and indelibly fixed to the product, a label, the packaging or accompanying documents.

The Declaration of Performance can either be provided to the customer as a paper copy, or electronically on a website. Each Declaration of Performance must have a unique number which corresponds to the CE Mark applied to each window or door.

Steps to applying CE Markings

- ▶ 1. Define your product and relevant standards
- ▶ 2. Review Annex ZA within relevant Product Standard(s)
- ▶ 3. Identify essential characteristics
- ▶ 4. Identify system(s) for demonstrating the performance of the product
- ▶ 5. Determine Assessment and Verification of Constancy of Performance requirements
- ▶ 6. Undertake relevant product testing and classify product types
- ▶ 7. Establish a Factory Production Control system
- ▶ 8. Produce a Declaration of Performance document
- ▶ 9. Apply CE Mark

How do I prove that my products meet the required standards?

The supplier of the individual components that make up your products (glazing units and frames) should be able to provide test results from a notified body confirming the performance of their products. Eurocell can provide this information for all of its PVC-U window and door systems.

Alternatively, you can send your own fabricated window and door models to a notified body for testing, allowing you to gain your own performance classifications for each product type.

Essentially, the responsibility for proving compliance can be cascaded back to the original component supplier. However, it remains the responsibility of the product manufacturer* to apply the CE Mark and provide a **Declaration of Performance** for the finished product.

Jargon buster

Quick-look guide at common terminology used in this guide and official documentation

AVCP	Assessment and Verification of Constancy of Performance
CPR	Construction Products Regulation 2011
CPD	Construction Products Directive
DoP	Declaration of Performance
FPC	Factory Production Control
hEN	harmonised European Norms

Obtaining a CE Mark

A more in-depth guide



1. Define your product and relevant standards

For Eurocell fabricators, this refers to windows and doors. A full list of applicable standards (current and in development) can be found on the BSI website. Here are two applicable to our fabricators:

BS EN 14351-1 Windows and doors
Part 1: Windows and external pedestrian doorsets without resistance to fire and/ or smoke leakage characteristics.

BS EN 14600
Doorsets and openable windows with fire resisting and/ or smoke control characteristics, requirements and classification

Technical standards are continually being developed. It is your responsibility to

keep up to date. The following standards may become applicable in the future:

BS EN 16034
prEN 14351-2

2. Review Annex ZA within relevant Product Standard(s)

Use Annex ZA within your selected Product Standard to identify actions to be taken. We will use BS EN 14351-1 as an example here.

Performance characteristics
Relevant performance characteristics need to be identified and declared by the manufacturer. These can be found in *Table ZA.1* of Annex ZA.

Identify tasks
Identify the tasks to be carried out by the manufacturer and the tasks to be carried out by a notified body that will allow you to make a **Declaration of Performance**.

3. Identify essential characteristics

Essential characteristics are the basic requirements for construction products. These must all be considered by the manufacturer, and evidence must be obtained for the characteristics that are applicable to your product.

You *must* determine and declare any characteristic which has:

- ▶ **An identified threshold value**
For example, a load-bearing capacity of safety devices. This must be 350N.
- ▶ **A requirement under UK Building Regulations**
For example, u-values must be a minimum of 1.6W/m²K for windows, and 1.8W/m²K for doors.

Refer to *table ZA.1* in the *BS EN 14351-1* for relevant characteristics of your product.

4. Identify system(s) for demonstrating the performance of the product

Once the essential characteristics have been determined, you need to identify the system that will allow you to demonstrate the performance of those characteristics applicable for the intended use of your product.

The CPR defines five systems within the AVCP that allow you to demonstrate the performance of your product. *Table ZA.2* in *BS EN 14351-1* lists the AVCP systems relevant to external pedestrian doorsets and windows.

Table ZA.2 in *BS EN 14351-1* lists the AVCP systems relevant to external pedestrian doorsets and windows:

System type	Responsibility	Type of notified body	Tasks
System 1+	Notified body	Product certification body	Initial inspection of the FPC system Continuous surveillance of the FPC system Determination of product type Audit testing
	Manufacturer		FPC and further testing of samples
System 1	Notified body	Product certification body	Initial inspection of the FPC system Continuous surveillance of the FPC system Determination of product type
	Manufacturer		FPC and further testing of samples
System 2+	Notified body	FPC certification body	Initial inspection of the FPC system Continuous surveillance of the FPC system
	Manufacturer		FPC and further testing of samples Determination of product type
System 3	Notified body	Test Laboratory	Determination of product type
	Manufacturer		FPC
System 4	Manufacturer	No independent involvement	FPC Determination of product type

System 1 applies to external pedestrian doors on escape routes.

System 3 applies to external pedestrian doors and windows not on escape routes.

Roof windows are covered by Systems 1, 3 or 4 depending on intended use and classification.

5. Determine Assessment and Verification of Constasy of Performance (AVCP) requirements

You need to determine the responsibilities of you, the manufacturer, and of notified bodies within the system previously identified. In the CPR document, this is broken down into five elements:

“Factory Production Control (FPC) on the basis of documented, permanent and internal control of production in a factory, in accordance with the relevant harmonised technical specifications

Initial inspection of the manufacturing plant and of FPC

Continuous surveillance, assessment and evaluation of FPC

Determination of product type on the basis of type testing, type calculation,

tabulated values or descriptive documentation of the product

Audit testing of samples taken before placing the product on the market”

6. Undertake relevant product testing and classify product types

Having determined your responsibilities, relevant product testing must be carried out to determine the performance of your product’s essential characteristics.

In BS EN 14351-1, the four essential characteristics and test standards are:

Dangerous substances

Required under REACH regulations.

Eurocell will provide a statement declaring its PVC profiles are safe to use and that there are no potential emissions of dangerous substances to the internal atmosphere of a building, and that the PVC profile is inert and all ingredients are locked into the polymer matrix. You are also required to gain similar statements from glass, hardware and other component suppliers.

Load bearing capacity of safety devices

If a safety device is present, testing must

be undertaken, and evidence provided in the form of written test reports. These should be obtained from your supplier.

Thermal transmittance

UK Building Regulations requires thermal transmittance to be determined and documented in a written technical report. Contact Eurocell to obtain this evidence.

Ability to release

If any emergency exit or panic devices are fitted, they must have been tested and CE marked to relevant standards.

Classification of product type must then be made.

7. Establish a Factory Production Control system

You may already have a Factory Production Control system in place if your company holds ISO 9001 Quality Management System accreditation. If not, it is the manufacturer’s responsibility to put one into place. Go to pages 6-7 for a typical set-up.

8. Produce DoP document

We have put together a comprehensive guide for producing a DoP. Go to pages 8-9 to find out more.

Apply your CE Mark

Upon completion of the eight steps outlined, you can apply the CE Mark to the product.

Remember:

- The manufacturer (or authorised representative) is responsible for affixing the CE Mark to all products.
- The CE Mark should be affixed visibly, legibly and indelibly on the product in one or more of the following locations: a visible location on the product when the leaves, casements or sashes are opened, an attached label, packaging or commercial documentation.

More indepth information can be found in ZA.3 within the Product Standard



Factory Production Control (FPC)

Guidelines to implement a typical FPC system



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It is the manufacturer's responsibility to set up and maintain a Factory Production Control (FPC) system

As part of the CE marking process, a **Factory Production Control** system must be implemented. If you hold existing certification from a third party certification scheme (such as BBA, Kitemark or Q-mark) or hold ISO 9001 Quality Management system accreditation, you will already have a **Factory Production Control** process in action.

If not, here are some guidelines for a typical **Factory Production Control** system that will help you put your own system into place, if you don't currently have one.

Please note – the processes and checks listed are not definitive or exhaustive. The purpose of this document is to assist with the creation of a **Factory Production Control** system that is appropriate for the organisation. It is the manufacturer's responsibility to ensure it is

established, documented and maintained in accordance to requirements.

Basic Factory Production Control system

The purpose of any **Factory Production Control** system is to systematically control the manufacturing process, within the boundaries set by specifications, standards and/or regulations, maintain records of the measurements and checks carried out, carry out corrective actions when non-conformity is identified and provide traceability through the process from customer order to delivery.

The **Factory Production Control** system is underpinned by the Quality Plan, the effectiveness of which should be reviewed regularly and updated if shortfalls are identified. Typical areas to consider are

Health & Safety, Training, Quality Control, Plant Maintenance, Record Keeping, Customer Service and Production Control.

Further guidance

More detailed guidance on the structure of Quality Management Schemes (QMS) can be obtained by from BS EN ISO 9001: 2008



Quality plan

A document mapping the **Factory Production Control** system throughout the organisation. This document will be the main point of reference on any aspect of the system and provide guidance to all staff involved in the daily operation of the system.

Responsibilities

List the individuals, either by name or job title, who are responsible for the various aspects of the **Factory Production Control** system and the duties they are responsible for.

Purchasing procedure

A process by which all goods have a purchased specification, are ordered against that specification, and provides traceability. Also a process to correct wrong purchases and disputes with suppliers.

Goods inwards procedure

A process by which all purchased goods entering the manufacturing process are

fully controlled to ensure they are of the correct type, quantity and quality, and provides a process to correct wrong deliveries and disputes with suppliers

Quality control procedure

List the product inspections that are carried out, who is responsible for them, what the pass/fail criteria are, and the action required when a failure is found.

Document control procedure

Identify which documents provide information on the **Factory Production Control** system, or identify the standards that must be maintained; where they are kept, and who has responsibility for maintaining them.

Customer ordering procedure

A suitable process to ensure that works orders are correctly placed for manufacture, are a true reflection of the customer's order, and provides a process for incomplete information disputes or customer complaints.

Manufacturing procedure

Information providing manufacturing instructions, appropriate tooling and machinery operation and health and safety.

Maintenance procedure

A list of machinery settings, how and when they are checked and adjusted, by whom and what records should be kept. A routine maintenance plan identifying the person responsible for maintenance and the records that should be kept.

Product identification

A system by which all products can be identified and monitored through the factory to the point of dispatch/delivery giving full traceability through appropriate records.

Competence and training

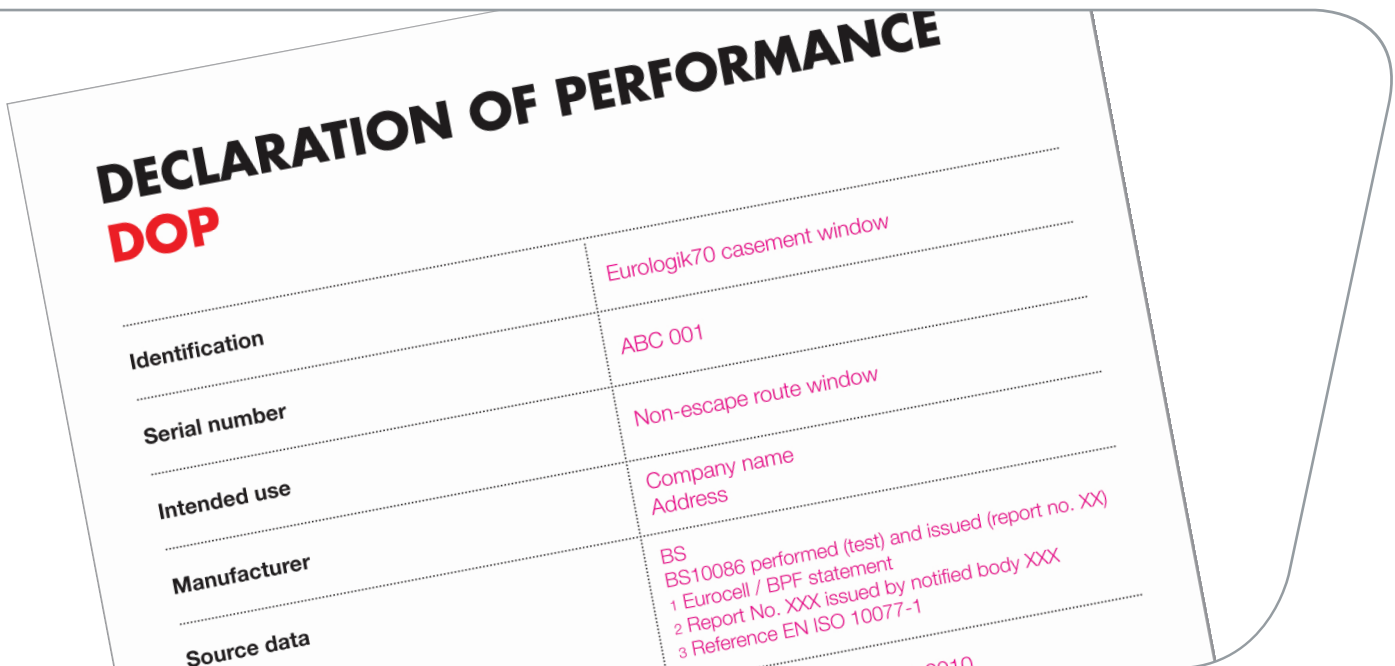
A staff assessment and training programme to ensure all staff are fully competent or that a training need has been identified. The person responsible for staff assessment and training and where training records are kept.

Declaration of Performance (DoP)

Your guide to producing a DoP document



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To satisfy the CE Marking process, a Declaration of Performance must be produced by the finished window manufacturer.

The Construction Products Association states in their 'Guidance Note on the Construction Products Regulation' document (available to download at www.constructionproducts.org.uk) that:

"5.1
By making a DoP the manufacturer, importer or distributor is assuming legal responsibility for the conformity of the construction product with its declared performance...DoPs must be publicly available."

Further information on Declaration of Performance documents can be found in ZA.2.2 of BS EN 14351-1.

The Declaration of Performance for windows and doors should contain:

- ▶ **Product description**
Including product identification (eg. Eurologik70 casement window), serial number and intended use (eg. Non escape route casement window).
- ▶ **Manufacturer details**
Including company name and address for the manufacturer and manufacturing site.
- ▶ **Assessment and Verification of Constancy of Performance (AVCP)**
State the Assessment and Verification of Constancy Performance system in use. This defines the level of involvement from third parties in assessing the product according to the relevant technical specification(s).
- ▶ **Harmonised standard**
Include the applicable harmonised standard (eg. EN 1431-1:2006 + A1:2010).
- ▶ **Declared performance**
Performance characteristics must be declared on the following: watertightness, air permeability, resistance to wind-load, dangerous substance, load bearing capacity of device, acoustic performance, thermal transmittance and radiation properties (including solar gain and light transmittance).
- ▶ **Signature**
All Declaration of Performance documents must be signed and dated by the manufacturer's designated representative.

Eurocell will provide all fabricators and installers with an editable Declaration of Performance template as shown below. If further assistance is required, please contact Eurocell's technical department on 01773 842100, or the Customer Care Team on 0333 321 2353. This document can be downloaded from eurocell.co.uk/cemarking

DECLARATION OF PERFORMANCE

DOP

Identification	Eurologik70 casement window
Serial number	ABC 001
Intended use	Non-escape route window
Manufacturer	Company name Address
Source data	BS BS10086 performed (test) and issued (report no. XX) 1 Eurocell / BPF statement 2 Report No. XXX issued by notified body XXX 3 Reference EN ISO 10077-1
Relevant harmonised standard	EN 145351-1:2006 + A1:2010

Declared performance

CHARACTERISTIC	DECLARED PERFORMANCE	HARMONISED STANDARD
Water-tightness	NPD	EN 14351-1:2006 + A1:2010
Air leakage	NPD	
Resistance to wind-load	NPD	
Dangerous substances ¹	None. See Eurocell / BPF statement	
Load-bearing capacity of safety device ²	350N	
Acoustic performance	NPD	
Thermal transmittance ³	< 2.0 W/m ² K	

The performance of the product is in conformity with the declared performance outlined above.
This Declaration of Performance is issued under the sole responsibility of the manufacturer identified above.

Signed on behalf of the manufacturer by:

Your signature here

Managing Director

Date:

18/01/2013

CE Mark

How to fill in a CE Mark label



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CE

AnyCo Ltd. Street, Town, County, P0ST C0D3
13

BS EN 14351-1:2006 + A1:2010
Eurologik casement window
ABC001
Non-escape route window

Water-tightness	NPD
Air-leakage	NPD
Resistance to wind-load	NPD
Dangerous substances	None
Load-bearing capacity of safety device	350N
Acoustic performance	NPD
Thermal transmittance	<2W/m ² K

Name and address of manufacturer

Last two digits of year manufactured

Harmonised standard

Identification

Serial number created by manufacturer

Intended use

Declared performance as noted in your Declaration of Performance (DoP) document

Further support

Helpful documents and contacts



DECLARATION OF PERFORMANCE
DOP

Identification

Serial number

Intended use

Manufacturer

Source data

Relevant harmonised standard

Declared performance

CHARACTERISTIC	DECLARED PERFORMANCE	HARMONISED STANDARD
Water-tightness		
Air leakage		
Resistance to wind-load		
Dangerous substances ¹		
Load-bearing capacity of safety device ²		
Acoustic performance		
Thermal transmittance ³		

The performance of the product is in conformity with the declared performance outlined above.
This Declaration of Performance is issued under the sole responsibility of the manufacturer identified above.

Signed on behalf of the manufacturer by: _____ Date: _____

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CE Marking / BS EN 14351 - 1:2006
A British Plastics Federation and Eurocell plc joint statement

In relation to the mandated requirements of BS EN 14351-1 for dangerous substances Eurocell PLC makes the following declaration:

'We declare that the PVC profile provided by our company to your operation is safe in use and that there are no potential emissions of dangerous substances to the internal atmosphere of a building. PVC profile is inert and all ingredients are locked into the polymer matrix.'

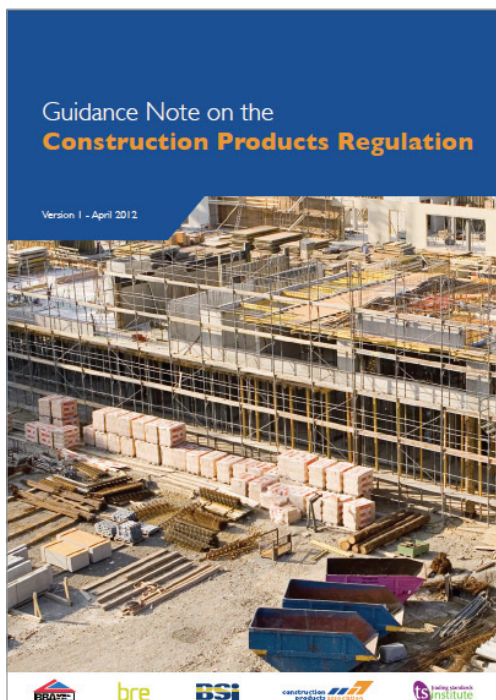

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Editable Declaration of Performance (DoP)
Eurocell has produced an editable PDF to make producing a DoP for your business easier. Visit eurocell.co.uk/cemarking to download this document

Dangerous substances declaration
Available from Eurocell technical department



Useful information

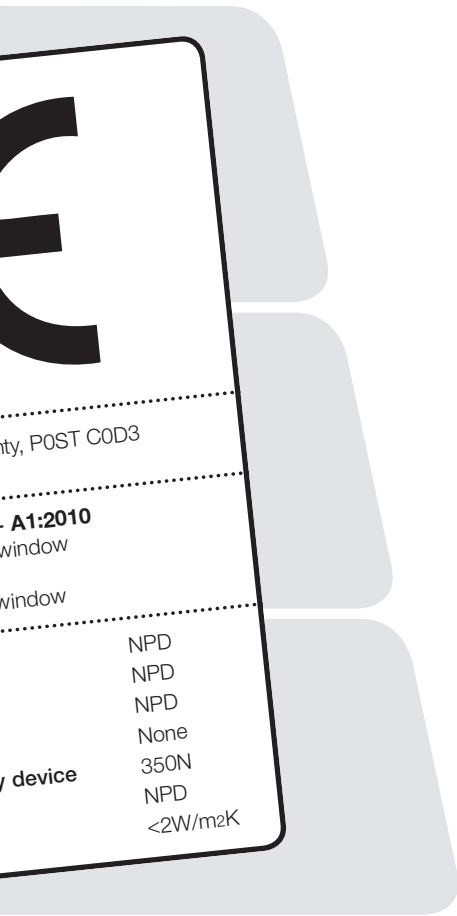
Construction Products Association (CPA)
www.bsigroup.com
Tel: 020 7323 3770
Email: enquiries@constructionproducts.org.uk

British Standards Institution (BSI)
www.bsigroup.com
Tel: 020 8996 9001
Email: cservices@bsigroup.com

For a full list of up-to-date standards applicable to construction products, go to:
www.standardsdevelopment.bsigroup.com

European Commission CE Marking page
ec.europa.eu/enterprise/policies/single-market-goods/cemarking

Construction Products Regulation (CPR)
Can be downloaded from www.constructionproducts.org.uk



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The technical specialists at Eurocell are always happy to provide advice and information about regulatory compliance and CE Marking. You can contact us on **01773 842100**, or visit **eurocell.co.uk**

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