

procedures/requirements to **C** € Mark your products



## Definitions What is CE Marking?

- A mark of where the product originates from
- A mark of quality in the traditional sense
- Related to aspects outside the essential requirements or functional performance of the product i.e. it does not cover colour, appearance, etc.
- A licence to use the product in all known applications in EU member states.

### Why do we need C € Marking?

The Construction Products Directive (CPD) was established to remove technical barriers to trade for construction products in Europe. With regard to glass products this would be achieved by the production of single harmonised European technical standards specifically against the "Glass in Building" mandate. The mandate covers flat glass, profiled glasses and glass block products. It does not cover products for the automotive industry.

 $\zeta \in Marking$  together with accompanying information also enables a product to freely pass national barriers, as  $\zeta \in Marking$  indicates that the product meets the claimed characteristics and can be placed in the EU market as long as it meets appropriate national regulations.

### What are the benefits of C∈ Marking?

The harmonised European norms (hENs) give a customer the following benefits:

- more transparent declarations from manufacturers than in the past and more open to challenge
- no legal requirement for maintaining national voluntary marks
- all suppliers must consistently deliver high quality product(s) across Europe.

## What are the ← Marking harmonised European Norms (hENs)?

The C€ Marking harmonised European Norms (hENs) are standards adopted by Comité Européen de Normalisation (CEN) who represent all the national standards bodies, following a mandate issued by the European Commission. They are developed through an open and transparent process, built on consensus between all interested parties.

The following are prescribed within the relevant hENs:

- how the product must conform to the mandate
- Product testing to be undertaken by the manufacturer, termed Initial Type Testing (ITT)
- Factory production controls e.g. material, production and product control, termed Factory Production Control (FPC).

The first four hENs to be published are:

- EN 572-9: Basic soda lime silicate glass products
- EN 1096-4: Coated glass
- EN 12150-2: Thermally toughened soda lime silicate safety glass
- EN 1863-2: Heat strengthened soda lime silicate glass

### **Timescales**

### When will glass for use in buildings need to be CE Marked?

 $C \in Marking$  of a product can commence 9 months after the date of publication of the relevant standard. There is then a further 12-month period to ensure a product meets the standard requirements for its declared intended use. Thereafter, glass for use in building relating to this standard must comply with the standard and in most EU member states, be  $C \in Marked$ . The entire 21 month time interval between the publication of a hEN and the mandatory date for a product in the market to conform to  $C \in Marking$  is called the **transition period.** 

The first set of hENs for glass in building was published in October 2004.

Due to delays in publication, there is now a confirmed **Date of Applicability of 1st September 2005.** From this date there will be a 12-month transition period of co-existence with national provisions, to ensure a product that the product in question meets the requirements for its declared intended use. Thereafter, all existing national provisions must be withdrawn (i.e. 1st September 2006).

Pilkington products affected by these four standards are detailed in the table below:

PRODUCT STANDARD	PILKINGTON PRODUCTS			
EN 572-9 (Basic soda lime silicate glass)	Pilkington <b>Optifloat</b> <sup>TM</sup> Clear and Tinted, Pilkington <b>Optiwhite</b> <sup>TM</sup> , Pilkington <b>Arctic Blue</b> <sup>TM</sup> , Pilkington Texture Glass, Pilkington <b>Pyroshield</b> <sup>TM</sup> , Pilkington <b>Profilit</b> <sup>TM</sup>			
EN 1096-4 (Coated glass)	Pilkington <b>Activ</b> <sup>™</sup> , Pilkington <b>K Glass</b> <sup>™</sup> , Pilkington <b>Optitherm</b> <sup>™</sup> , Pilkington <b>Suncool</b> <sup>™</sup> , Pilkington <b>Eclipse Advantage</b> <sup>™</sup>			
EN 12150-2 (Toughened glass)	Pilkington T glass			
EN 1863-4 (Heat Strengthened glass)	Pilkington Heat Strengthened glass			

All EU countries will be obliged to comply with and resolve any conflicts with national voluntary marks by the end of the transition period. Even in those member states where  $\zeta \in Marking$  has not been made mandatory (UK, Ireland, Sweden & Finland), products will need to comply with the requirements of the relevant hEN.

### Procedures/Requirements

### What procedures does a customer have to take prior to C€ Marking a product?

#### **Glass Processors**

- 1. Decide on what products/product families are being offered.
- Determine the standards which apply to those products.
   All the supporting standards have been published and are available through national standards bodies.

E.g. for a toughener:

- EN12150-1 defines Product Definition and Description.
- EN12150-2 defines Evaluation of conformity containing information on Factory Production Controls (FPC).
- 3. Identify the Initial Type Testing (I.T.T.) requirements and carry out initial internal product assessments.
- 4. Decide on the System of Attestation applicable.
- 5. Prepare consistent FPCs.
- 6. Undertake I.T.T. on representative samples through a Notified Body as appropriate.
- 7. Align Quality Management Systems with the requirements of hENs (those compliant with ISO 9000:2000 are deemed to comply).
- 8. Develop a 'Technical file' which contains all product approved technical and test data.
- 9. Prepare declaration of conformities.
- 10. Produce the C ∈ label and accompanying document information.

Customers will need to develop their own methodology where they operate more than one production site/line E.g. whether to have FPC per site or one for all sites and ITT per production site/line.

#### **Glass Merchants**

Glass supplied by Pilkington will have all the necessary information without the need for further validation. Pilkington will supply all basic glass products, i.e. float and coated with appropriate information. Therefore a stock customer can rely upon the information with no need to revalidate any of the claimed parameters. However, a merchant must ensure that:

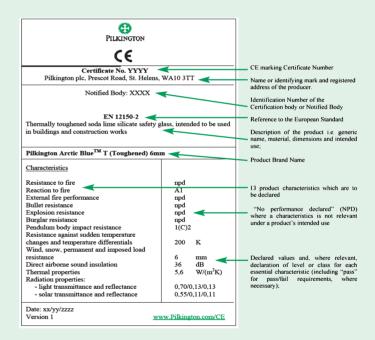
- When stock items are split as individual items, the delivered product carries some sort of replication document or label
- When cutting to size and selling on, the glass complies to EN 572-8

## Where will the ← Marking symbol and information appear?

The  $(\in Marking \ symbol)$ , the relevant product standard reference and the Pilkington Internet website address www.Pilkington.com/CE, will be placed on an accompanying product label. The website which will be live from 1st September 2005, will contain the 'full'  $(\in Marking \ label \ information \ required for each product, and can be downloaded or printed.$ 

An example of a pack label & C € Marking label is attached below.





No Performance Determined (npd) will only be seen on labels in either of the following scenarios:

- When and where the characteristic, for a given intended use, is not subject to regulatory requirements in the Member State of destination.
- Where the manufacturer does not wish to claim a performance for that characteristic. The NPD option may not be used where the characteristic is subject to a threshold level.

Note: the threshold level is a level of performance determined by the relevant product standard vis a particular characteristic.

# How much information regarding C € Marking should I expect my glass supplier to provide me with for my customers?

Pilkington will supply the basic glass products with all appropriate accompanying information and, as such, a processor can rely upon it with no need to revalidate any of the claimed parameters. Pilkington will be prepared to answer any questions you have and similarly provide you with updated information on the standards and required actions as soon as any information is available. The website will also provide supplementary information.

### How will a product be shown to conform to a hEN?

When a product is placed on the market there must be a public declaration of the product's functions or intended uses. The intended uses must be shown to comply with a hEN. This is done through a 'System of Attestation of Conformity' dependant on the final intended use of the glass product.

#### **System of Attestation – Intended Uses**

System of Attestation	Intended Use
1	Fire resistance, Bullet Resistance, Explosion Resistance
3	Reaction to Fire, External Fire Performance, "Safety-in-use" risks, Energy conservation, Noise Reduction
4	Anything Else

Systems of Attestation of Conformity (contained within the CPD) details the level of involvement of Notified Bodies. A Notified Body is an organisation selected by a member state, involved in certification and/or inspection and/or testing a product's intended use. Tests, inspections and certificates done/delivered by a Notified Body have to be recognised and accepted in all the countries of the EU.

	Role of Manufacturer		Role of Notified Body			
	ITT	Inspection of FPC	ITT		Continuous Surveillance	
1	*		*	*	*	*
3	*			*		
4	*	*				

# Does glass imported from outside Europe and the European Union need to be C € Marked and carry the C € Marking symbol?

Yes. It is the responsibility of the person placing the product on the market e.g. manufacturer's agent, importer, etc, to ensure that the product complies with the appropriate hEN. E.g. any product manufactured by Pilkington outside of Europe and placed on the European market will be covered by the Pilkington ( $\in$  Marking system.

# Product Related Questions How do you decide which standards apply to products with multiple functions?

The organisation placing the product on the market is required to show, through appropriate reference to the relevant hENs and declaration of essential product characteristics, that the product is suitable for its declared purpose.

E.g.1: Pilkington **Pyrostop**<sup>™</sup> containing a Solar Control glass where the intended use is 'fire resistance'. In this case the relevant hEN is EN14449 for a monolithic

In this case the relevant hEN is EN14449 for a monolithic pane and fire and solar performance characteristics will be stated under the CE declaration.

E.g. 2: An Insulating Glass Unit (IGU) incorporating the same Pilkington **Pyrostop**<sup>TM</sup> product and carrying a similar intended use of 'fire resistance' must comply with hEN 1279-5 and fire and solar performance characteristics will again be stated in the CE declaration.

Note: Any product with claims for fire or bullet resistance intended uses must comply with System of Attestation 1 requirements.

The date of applicability of the hEN for IGUs has yet to be confirmed.

# Will you be able to sell products in the same country as they are made, if they do not carry the ℂ € Marking symbol?

In four Member States (UK, Ireland, Sweden and Finland),  $\zeta \in$  Marking is not mandatory. The  $\zeta \in$  Mark can be excluded from a product label or supporting documentation. However, these Member States are still bound by CPD Mandate M135 to comply with the requirements and timeframes of published hEN's.

## National Schemes & Standards

# Once C Marking is required, what will happen to existing national voluntary schemes?

All EU countries will be obliged to replace local voluntary marks, where they cover the same area as the  $\zeta \in Mark$ . In principle, national voluntary schemes should become obsolete. The EC believes that any voluntary marks that are used to top up the  $\zeta \in Marking$  requirements to increase the virtual state of attestation of conformity should be on a pan-European basis. This would give/maintain the concept of a level playing field

e.g. a national body carrying out checks on the FPC manual, regular surveillance and taking samples for further testing, could raise the state of product conformity. (This may not necessarily be the case however with voluntary schemes but any such scheme must be seen to add value thereby raising the scheme to System 1+).

# What will happen to building regulations when national standards are superseded by CEN Standards?

If not already done so, the building regulations will be modified during the C∈ Marking transition period. For example, in the UK, Part B covering fire safety was issued with a European supplement in 2003 that changed references from traditional British Standards to the new European test and classification methods. In the future, Part N (safety glazing) will change from BS6206 to BS EN 12600.

## What exemptions to C∈ Marking does a country have?

No EU country has exemptions to complying with the hENs. The UK, Ireland, Sweden and Finland, however, do not require the C € Marking symbol to accompany the product(s).

# What are the penalties for companies making a false declaration about its C∈ Marking?

The standards set out a range of accepted values against a product's intended use. Manufacturers must have supporting evidence in their Technical File, proving a product's compliance to the respective standard. This data can be openly challenged by surveillance bodies and Trading Standards Officers (TSO's) not to mention other glass companies. False declaration of performance can therefore be easily established.

Where a manufacturer claims that their products are  $\zeta \in Marked$  i.e. claims compliance and/or product characteristics that are false the penalty for the false declarations are set by each country. In the UK for example:

- Up to £5,000 and or 3 months imprisonment.
- Product recall.
- Product replacement depending on intensity of fraud.

### Glossary of Terms

- 1. Constructions Product Directive (CPD) the CPD was established to remove technical barriers to trade for construction products. With regard to glass, products this would be achieved by the production of harmonised European technical standards, through CENTC-129. Mandate M135 is specifically relevant to "Glass in Building". The mandate covers flat glass, profiled glasses and glass block products.
- **2. Harmonised European Norm (hEN)** the hENs are European standards adopted by Comité Européen de Normalisation (CEN) following a mandate issued by the EC. They are developed through an open and transparent process, built on consensus between all interested parties and will be the standards that appear in the Official Journal of the European Community (OJEC).
- **3.** ( $\in$  Mark the  $\in$  Mark is a symbol placed on either a product or product accompanying documentation. The  $\in$  Mark indicates that a product conforms to all the provisions of the CPD and hEN as required by the CPD.
- **4. System of Attestation of Conformity** The 'Systems of Attestation of Conformity' contained within the CPD details the level of involvement by Notified Bodies in the process of showing conformity. Dependant on the final intended use of the glass product a different 'System of Attestation may be applicable. From the available Systems of Attestation only 1,3 and 4 apply to 'Glass in Building'...
- **5. Initial Type Testing (ITT)** testing undertaken by:
- The manufacturer in the case of System of Attestation 4 and.
- A Notified Body in the case of Systems of Attestation 1 or 3. Test methods are contained within the supporting product standards.
- **6. Factory Production Control** (**FPC**) each hEN contains detailed factory production controls required to ensure the system operated within a factory meets all the relevant criteria set out in the hEN. These tend to cover material control, production control and product control.
- **7. Date of Applicability** date of applicability defines the first day when the hENs become applicable. For the first set of standards this is 1st September 2005.
- **8. Transition Period** the 'transition period' refers to the 21-month time interval between the publication of a hEN and the mandatory date for a product in the market to conform to the CPD and be  $\zeta \in Marked$ .
- **9. Notified Body -** A Notified Body is an organisation involved in certification and/or inspection and/or testing that are notified, by a member state, to the European Commission as being competent. Tests, inspections and certificates done/delivered by a 'Notified Body' have to be recognised and accepted in all the countries of the EU.

# September 2005 Version

## Appendix: Timetable of hENs Publication

The first hENs published:

- EN 572-9 Glass in building: Basic soda lime silicate glass products
- EN 1096-4 Glass in building: Coated glass
- EN 1863-2 Glass in building: Heat strengthened soda lime silicate glass
- EN 12150-2 Glass in building: Thermally toughened soda lime silicate safety glass

#### Note:

The standard parts quoted above are the Evaluations of Conformity of each standard, detail of which will appear on the Official Journal of the European Community (OJEC). All other parts of each particular standard are classed as supporting documents (Product Descriptions, Test Methods & Factory Production Control)

Voluntary ( € Claim of Compliance/Marking may commence 1st September 2005.

A period of co-existence with national standards will ensue for a further 12 months

Mandatory (€ Compliance/Marking will be from **1st September 2006.** 

The next batch of hENs, expected to be applicable from Spring 2006, are:

- EN 1279-5 Glass in building: Insulating glass units
- EN 14179-2 Glass in building: Heat soaked thermally toughened soda lime silicate safety glass
- EN 14449 Glass in building: Laminated glass and laminated safety glass

