

Guidelines on CE Marking

1 Introduction

It is an important goal of the European Community to guarantee the free movement of goods within Europe and to abolish technical barriers to trade. To this end, European standards and directives have been and are being developed. The CE mark allows a manufacturer to document the conformity of their product to the relevant directive and technical specifications. The CE mark is thus a mark of conformity, though not one of quality.

2 The Code for Building Products and its Implementation in National Law

2.1 The Code for Building Products

The Code for Building Products was enacted in order to guarantee the free movement of goods in the building sector. It created the preconditions for the harmonization of legal and administrative building products regulations in the member states.

2.1.1 Most Important Requirements

According to Art. 2 sec. 1 of the Code for Building Products, the member states must implement all necessary measures to ensure that building products only enter the marketplace if they are serviceable, i.e. if they exhibit such properties that the building for which they are intended will fulfill the **Essential Requirements**. These requirements arise from appendix I of the Code for Building Products as follows:

- Mechanical strength and stability
- Fire protection requirements
- Hygiene, health and environmental protection considerations
- Safety of use
- Sound insulation
- Energy conservation and protection against loss of heat

2.1.2 Harmonized Standards

The technical details for substantiating the previously mentioned requirements are developed by the European standardization institutes. These act on the basis of mandates (standardizing briefs) from the European Commission. Standards in the form of technical regulations developed by the European standardization institutes on the basis of a mandate and publicized in the EU official journal are called "harmonized standards".

2.2 The Implementation of the Code for Building Products in Germany

European guidelines must be implemented in national law.

2.2.1 The Building Products Act, BPA (Bauproduktengesetz, BauPG)

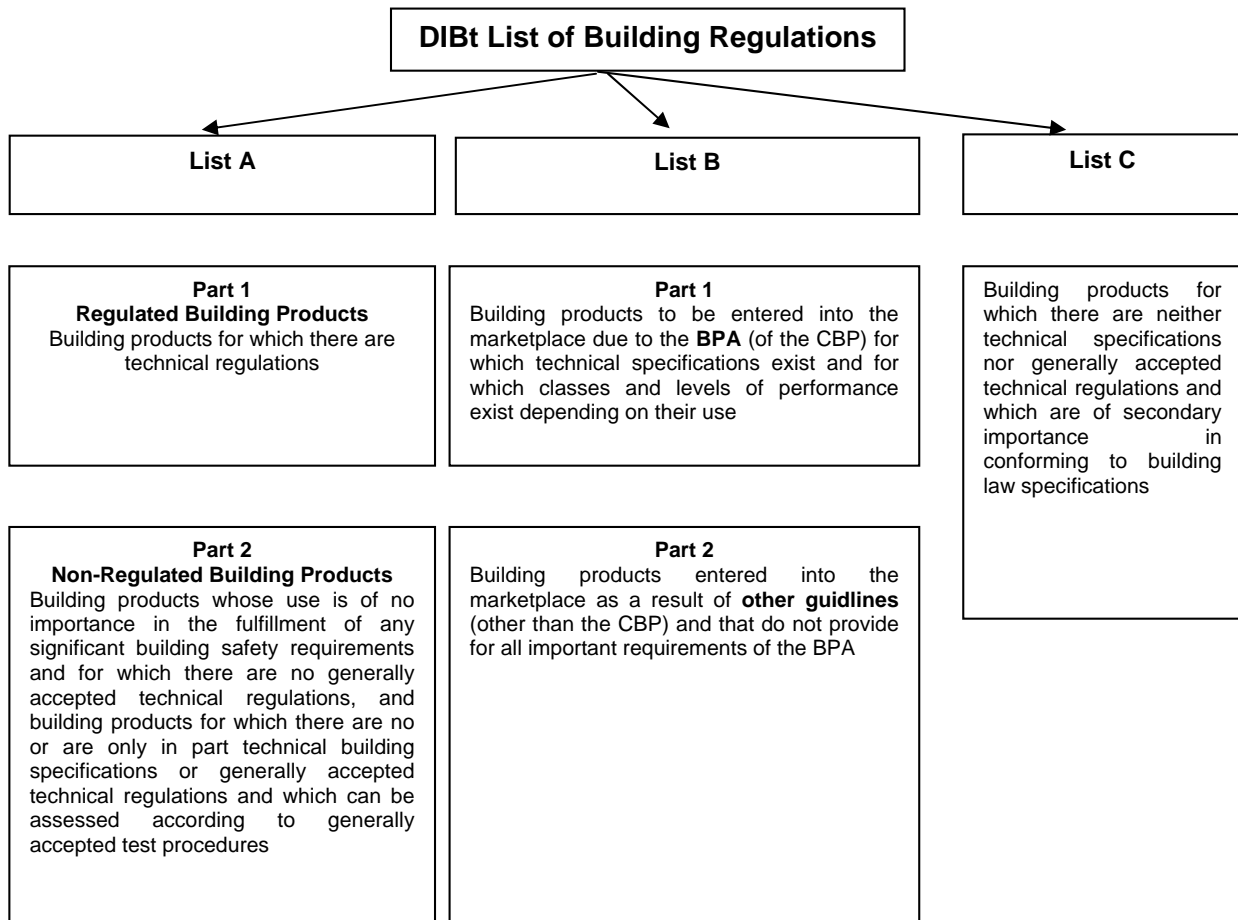
The Code for Building Products was implemented in Germany in the form of the Building Products Act. According to this act, a building product may only be entered into the marketplace if it is serviceable. A building product is considered to be serviceable if it conforms to a publicized, harmonized standard, among other stipulations. The manufacturer of a product must perform a conformity procedure in order to establish this (see 3.1.1)

2.2.2 The Model Building Regulations, MBR (Musterbauordnung, MBO)

As the Code for Building Products governs not only the free movement of building products but also their use, the Model Building Regulations enacted by the conference of regional German building ministers, or ARGEBAU, were altered with respect to the use of building products. The background to this move is the German regulation that legislative competence in building law lies with the regional federal governments. The alterations to the MBR were then assumed into the individual regional building laws in the federal states.

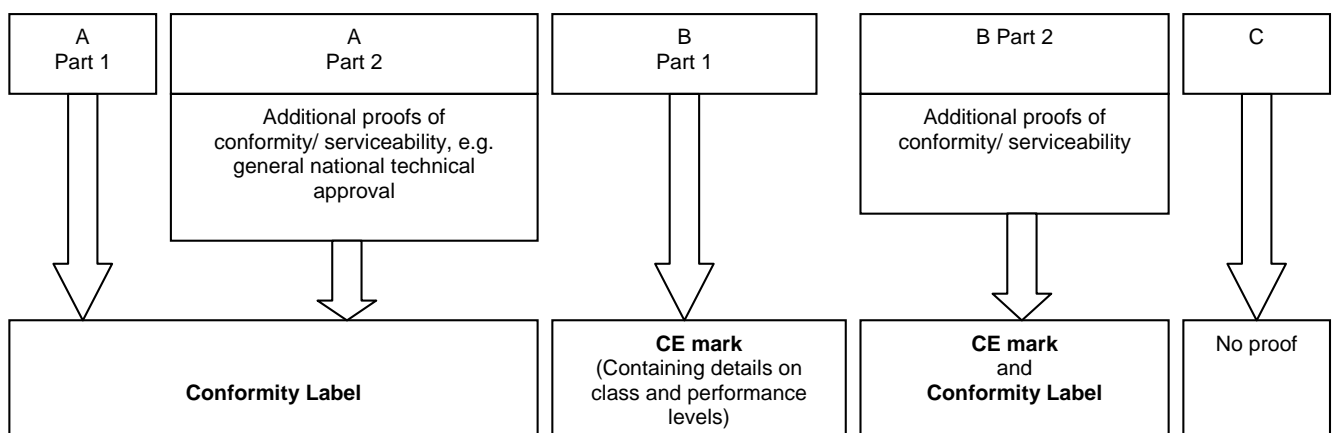
2.2.2.1 The List of Building Regulations

The list of building regulations - to which the MBR refers - created by the German Institute for Building Technology (Deutsches Institut für Bautechnik, DIBt) is of considerable importance regarding the use of building products:



2.2.2.2 Proofs of Serviceability

Taking the preceding differentiation among building products into consideration, the following proofs of serviceability are required:



3 The CE mark

3.1 The Road to the CE mark

As stated in 2.2.1, a building product may only be introduced to the marketplace and freely traded if it is serviceable. A building product is considered to be serviceable when it conforms to publicized, harmonized standards (among other requirements).

3.1.1 Conformity Procedure

A proof of conformity procedure must be carried out on a building product in order to demonstrate that it fulfils a particular publicized harmonized standard. This procedure can consist of the following components (see § 8 para. 2 clause 1 of the BPA):

- Initial test of the building product by the manufacturer/a test centre
- Tests of samples taken from the factory, carried out by the manufacturer or a test centre according to a predetermined testing plan
- Spot sampling of samples taken from the factory, from goods on the open market or from the building site by the manufacturer or a test centre
- Tests of samples from a batch to be delivered or one already delivered by the manufacturer or a test centre
- Continuous self-monitoring of the production by the manufacturer (in-house manufacturing control, IMC)
- Initial inspection of the factory and of the in-house manufacturing control by an inspection agency

A range of different proof of conformity procedures result if the preceding elements should be combined. There are a total of 6 conformity systems. The respective system to be applied is given in the harmonized standard. The following table shows which task must be performed by whom for the respective procedures:

| Conformity procedure | Manufacturer Task | | | Notified Centre Task | | | | |
|----------------------|-------------------|--------------|---------------|-----------------------|--------------|-----------------------------------|--------------------------------|--------------------|
| | IMC | Initial test | Further tests | Inspection of the IMC | Initial test | Initial inspection of the factory | Continuous external monitoring | Samples inspection |
| 1 | x | | | x | x | x | x | |
| 1+ | x | | x | x | x | x | x | x |
| 2 | x | x | | x | | x | | |
| 2+ | x | x | x | x | | x | x | |
| 3 | x | | | | x | | | |
| 4 | x | | | | | | | |

This table shows that, for example, within the framework of procedure 3 an initial test by a notified centre and an in-house manufacturing control are both required.

3.1.2 Declaration of Conformity

The final stage of a proof of conformity procedure is the declaration of conformity by the manufacturer; under certain conditions a certificate of conformity from a notified centre may also be required. The declaration of conformity by a manufacturer confirms that the procedures prescribed to determine conformity have been carried out and have confirmed the conformity of the building product. It must be given in writing, kept by the manufacturer and produced if required by an agent of the relevant agency. The declaration of conformity (or the certificate of conformity) authorize and oblige the manufacturer to use the CE mark.

3.2 Regulations on the CE mark

The look of the CE mark, what information it must contain and where it must be affixed to the product are all determined by detailed specifications:

A sample of the CE mark and details on its size can be found in appendix IV of the Code for Building Products. What information it must contain and where it can/must be affixed is stipulated in appendix ZA of the relevant product standard.

4 CE marking of Windows and Exterior Doors as per EN 14351-1

EN 14351-1 is a harmonized standard. It contains details on CE marking for windows and exterior doors, appendix ZA in particular. Table ZA.2 shows what system of conformity is to be applied for which application. Procedure 3 will generally need to be carried out. This consists of the following 3 fundamental components (see table ZA.3b of EN 14351-1 for details):

- Initial test (**InitialTypeTest**) of the product by a notified centre
- In-house manufacturing control

4.1.1 ITT

An initial type test is the evaluation of the product characteristics according to a harmonized European products standard on representative test samples by measurement, calculation or other procedures described in the products standard.

As a company that manufactures entire systems, VBH has been supporting the manufacturers of windows and doors by already carrying out numerous initial tests! VBH provides the manufacturers with the results within the framework of the CE-Fix Project in the form of product IDs (in the so-called Cascading procedure). Thus VBH helps to save the manufacturers time and costs!

4.1.2 In-House Manufacturing Control (IMC)

A general definition of the IMC can be found in appendix III of the Code for Building Products. Hereafter, IMC means (...)

"(...) the continuous self-monitoring of the manufacturing process by the manufacturer. All data, specifications and regulations given by the manufacturer must be systematically adhered to in the form of written operating and procedure instructions. These documents, created within the framework of the manufacturing control ensure a common basis for quality assurance and guarantees the characteristics required of the products and the effectivity of the manufacturing control."

Further details can be found in no. 7.3 of EN 14351-1.

As part of its support for manufacturers of windows and doors, VBH will provide IMC documentation within the framework of the CE-Fix Project! They were developed together with the ift Rosenheim and comply with the requirements of EN 14351-1 for IMCs!