GUIDANCE ON CONFORMITY MARKING, THIRD PARTY TESTING, ASSESSMENT AND CERTIFICATION

This Technical Briefing has been written to explain the essential differences between conformity marking, third party testing, assessment and certification. It is fully updated to include both UKCA and UKNI marking and has been written jointly by GAI (Guild of Architectural Ironmongers) and DHF (Door & Hardware Federation).

1 CONFORMITY MARKING - CE & UKCA

The CE mark is a conformity mark introduced by the then European Economic Community in 1985. It is a legal declaration by a manufacturer that a product complies with one or more European single market directives or regulations. There are some two dozen of these, ranging from medical devices to toys. Products displaying the CE mark must be accepted on the market in all European countries (although national governments retain the ability to regulate how the products are used).

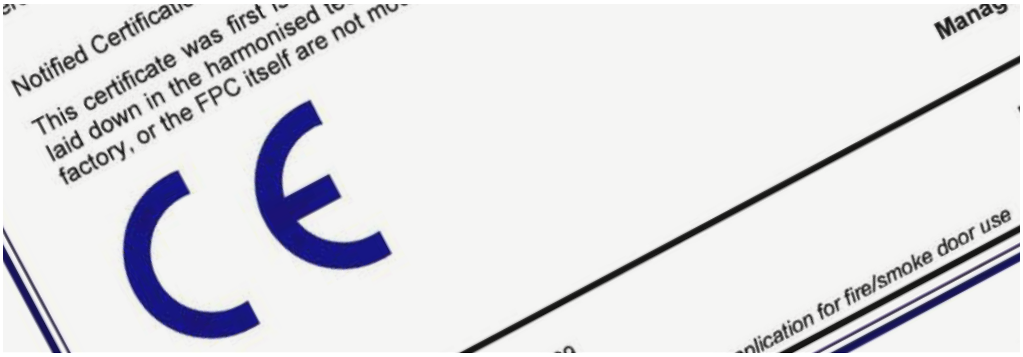
Following Brexit, a new conformity mark has been introduced in Great Britain (England, Wales and Scotland) to replace the CE mark; this is the UKCA mark. At the time of writing, the two marks are applied in the same way, according to the same standards.

An important change is that, where third-party conformity assessment is legally required, this process must be undertaken by an EU notified body for the CE marking and by a UK approved body for the UKCA marking. This may mean repeating testing or certification to maintain the relevant conformity mark.

The CE marking remains in force for the Northern Ireland market. Where third-party conformity assessment is required, this normally means that the CE mark must be supported by certification or testing by an EU notified body, as above. However, for the Northern Ireland market only, a CE mark can instead be supported by UK certification or test evidence provided that the new UKNI mark is applied alongside the CE mark. This is intended to avoid the need for repeat testing. The UKNI mark is never used on its own; its sole purpose is to indicate that the accompanying CE mark is supported by UK notified body evidence and, as such, is not recognised outside Northern Ireland.

After the end of the Brexit transition period on 31 December 2020, the situation regarding CE marking was as follows:

- Valid CE marking continues to be recognised in GB until the end of 2021. It will continue to be recognised in Northern Ireland as long as the NI Protocol continues in force.
- Where the CE marking requires a conformity assessment by a notified body, UK notified bodies are no longer recognised for this purpose; any compulsory conformity assessment supporting the CE mark must have been carried out by an EU notified body. (N.B.: The only exception to this is Northern Ireland, where CE marking supported by conformity assessment by UK bodies can still be accepted, provided that the UKNI mark is applied alongside the CE mark; this CE plus UKNI marking is not recognised outside Northern Ireland.)



1 CONFORMITY MARKING - CE & UKCA

The situation regarding UKCA marking is:

- UKCA marking is not recognised anywhere in the EU or in Northern Ireland.
- UKCA marking will be the only recognised conformity mark in GB (England, Wales & Scotland) after 31.12.21. (N.B.: The only exception to this is for goods shipped from Northern Ireland to GB. Under the NI Protocol, such goods enjoy "unfettered access" to the GB market and any conformity mark recognised in NI is accepted in GB. This includes CE and CE+UKNI.)
- Where UKCA marking requires a conformity assessment by a UK approved body, EU notified bodies are not recognised for this purpose; any compulsory conformity assessment supporting the UKCA mark must have been carried out by a UK approved body.

The principal measures of relevance to doors and hardware are:

- the Construction Products Regulation 2011 (CPR) and its equivalent in GB, the Construction Products Regulations 2013, as amended.
- the Machinery Directive 2006 (MD) and its equivalent in GB, the Supply of Machinery (Safety) Regulations 2008, as amended.

The CPR covers all construction products, but only if the product in question is covered by a "harmonised" European standard or a "designated" standard in GB. Currently, this includes external hinged doorsets, industrial doors, garage doors and several hardware items intended for fire and emergency escape doors. Since July 2013, manufacturers have been required to apply the relevant conformity marking and issue a Declaration of Performance for each product. Conformity marking for fire-resisting shutters and external fire resisting pedestrian doorsets became compulsory in November 2019; conformity marking of internal doorsets, whether fire-resisting or not, has, however, been delayed.

The MD covers only machines with a motor of some kind, and this includes all powered doors and gates. Since the mid-1990s manufacturers of such products have been obliged to apply the conformity marking and issue a Declaration of Conformity. The conformity mark provides evidence that a product meets relevant safety requirements and, in the case of the CPR, accessibility, sustainability, and environmental protection requirements in addition.

The duty to apply the conformity marking applies to the person placing the product on the relevant market, usually the manufacturer. The existence of the mark means that the product is free to circulate on the market. In the case of construction, the legal duties of the builder are covered in national building regulations, not conformity marking legislation. A conformity marked product may be lawfully circulating on the market, but this does not necessarily imply that it is suitable for use on a specific building project. In order to assess this, it will be necessary to compare the product's declared performance with the requirements of local building regulations.

Figure 1 - Product Marking sales territories

Product Marking	Great Britain (Eng/Sco/Wal)	Northern Ireland	European Union
UKCA	✓ CAN sell in to Great Britain	✗ CANNOT sell in to Northern Ireland	✗ CANNOT sell in EU
CE UKNI	✗ CANNOT sell in to Great Britain*	✓ CAN sell in to Northern Ireland	✗ CANNOT sell in EU
CE	✓ CAN sell in Great Britain up to 31.01.21. CANNOT sell after* ✗	✓ CAN sell in to Northern Ireland	✓ CAN sell in EU

* Unless NI manufacturer under unfettered access of NI protocol

2 HARMONISED AND DESIGNATED STANDARDS

Harmonised European standards (hENs) are European standards specially created to support European directives. Compliance with a hEN creates a legal presumption of conformity with some or all of the technical requirements of a directive. Some directives do not recognise hENs and in many other cases their use is, strictly speaking, voluntary. The European Construction Products Regulation, however, requires products within their scope to declare their performance in accordance with the relevant hEN. This means that, for CE marking under the CPR, only testing carried out in accordance with the hEN is valid.

UK designated standards are the UK equivalent of a European harmonised standard. These are developed by a recognised national or international standards body through a process of consensus, which is designated by Secretary of State and is recognised by UK government in part or in full by publishing its reference on GOV.UK in a formal notice of publication.

Figure 2 details relevant conformity marking requirements for fire door assemblies. Items in the blue area come under the scope of a harmonised or designated standard and must be CE, UKCA or CE+ UKNI marked if intended by the manufacturer for use on fire doors. Items in the green area do not fall under the scope of a harmonised standard, so are not CE, UKCA or CE+ UKNI marked. They can still be used on fire doors if there is documentary evidence to show that they are suitable for the door in question. Evidence could be third party product certification; fire test reports; or assessment by a competent body. (An innovative or unusual product can be voluntarily CE marked to a special standard such as a European Technical Assessment or CUAP written for it.

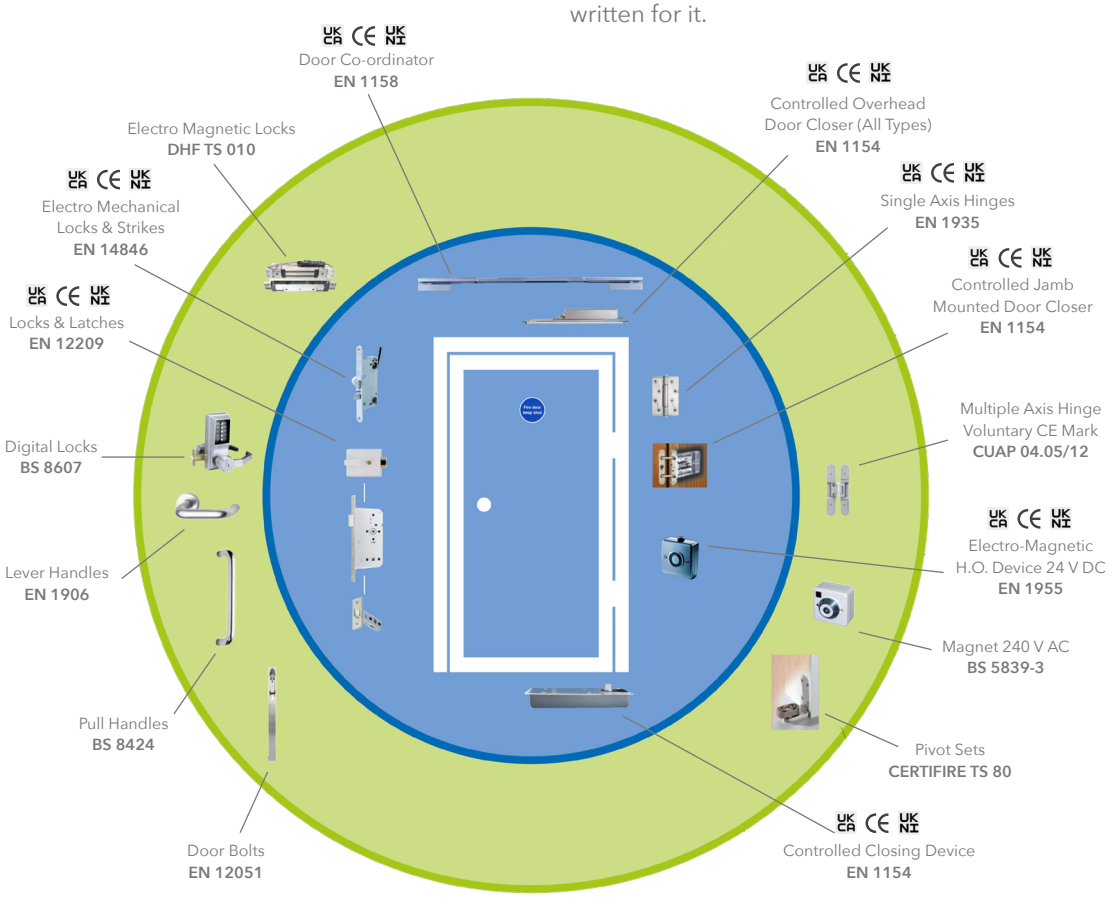


Figure 2 - CE, UKCA or CE+ UKNI Marking requirements for fire door assemblies

3 METHODOLOGIES OF TESTING AND ASSESSMENT

Methodologies

There are three methodologies of assessing or testing a product:

- First party - where the requirements can be tested or assessed by a manufacturer or supplier.
- Second party - where they are tested or assessed by a user or purchaser.
- Third party - where they are tested or assessed by an independent organisation or body. They are independent because they are not affiliated with the producer nor the user of the item being tested; no commercial bias is present.

Third party testing

When third party testing is conducted, a manufacturer or supplier provides an independent test laboratory with samples. The samples are tested to the required standard and a test report is issued. The information contained in the test report relates to the specific sample that was tested and to the unconfirmed information provided by the sponsor of the test.

Therefore, test reports relate only to the products/materials/samples that were tested and do not necessarily relate to on-going production. Test reports are a statement of fact in relation to what occurred when the test was conducted. Minor changes in the composition of a material from that which was tested may significantly affect the performance of the product/material and may therefore invalidate any test results that have been obtained.

It should be noted that a test report does not contain any verification or make any claims that what was tested is the same product that is being manufactured/sold/placed onto the market by the company who requested the test to be undertaken. Test evidence (test reports) are a manufacturer's/supplier's evidence or claim that the product they manufacture/supply behaves in a particular way when subjected to the conditions of the test that has been undertaken.

It is the responsibility of the manufacturer supplier of a product/material to ensure that the product specification supplied is identical in all respects to the specification that was subjected to the conditions of the test.

4 FIRE RESISTANCE ASSESSMENT REPORTS

Fire test reports relate only to what has been tested and allow very little in the way of variations. Because it is impractical to test all potential variations of fire-resisting elements for all applications, professional assessments are often necessary to establish whether variations from tested details are acceptable. The nature and scope of any variations permitted will largely depend on the specification, size and configuration of the original test specimen.

The assessment process ideally requires discussions between the test sponsor and the testing laboratory prior to testing, to agree the test sponsor's requirements for the complete product range and establish the optimum test programme, although assessment based on existing test evidence is still possible.

Once the fire test programme has been successfully completed, the assessor is able to provide an opinion in the form of an assessment report that will combine all items of test data into a single document identifying the maximum permitted parameters, or consider any specific changes to the tested specification that the test sponsor requires. The assessment report becomes the document that the test sponsor will use in support of their test reports.

Assessments consider a wide range of aspects of design; for example, with doors the following are typically considered:

- Changes in leaf dimensions (height and width).
- Changes in doorset configurations (single leaf, double leaf, single acting, double acting).
- Glazed aperture sizes and configurations.
- Option to use alternative glass types.
- Door frame variations (e.g. size, section, material, etc.).
- Changes and additional items of hardware.
- Intumescent specification.

Assessment reports normally have A stipulated validation period such as 5 years, after which time they should be returned to the assessing body for review. Again, it is the responsibility of the manufacturer supplier of a product/material to ensure that the product specification supplied complies in all respects with the specification and parameters identified within the assessment report. This assessment purely represents an opinion as to the performance likely to be demonstrated on a fire test, on the basis of the evidence referred to.

Assessments as described above cannot be used to support CE, UKCA or CE+ UKNI marking under the European or UK CPR. For CE, UKCA or CE+ UKNI marking of fire-resisting doorsets, fire test evidence must be to EN 1634-1. Product variations outside the scope of the "direct application" of the EN 1634-1 test report must rely on an "extended application report" prepared by a notified product certification body in accordance with the relevant part of EN 15269. This European "EXAP" process is broadly equivalent to an assessment, but generally the scope of permitted variation from the tested product will be less extensive.

5 THIRD PARTY PRODUCT CERTIFICATION

ISO Guide 65/ISO Guide 67 (System 5) third-party product certification involves, amongst other things, the following procedures to be undertaken. All of these aspects are carried out by and under the full control of the independent third-party product certification body (not the manufacturer supplier of the product/material):

1. The certification body, will carry out an initial quality management system (QMS audit at the place of manufacture of the product and/or manufacturing site of any critical components used in the manufacture of the product. This is to determine if the processes and procedures are satisfactory.
2. The certification body carries out an initial factory production control (FPC) audit at the place of manufacture of the product and/or manufacturing site of any critical components used in the manufacture of the product. This is to determine if the technical production processes and procedures are satisfactory.
3. The certification body selects the necessary product(s)/material(s) that are to be tested in support of the certification process (from the manufacturing production line, the manufacturer's stock or the open market).
4. The certification body arranges for the selected product(s)/material(s) to be tested at an independent third-party test laboratory. In most cases, the test laboratory that is utilized by the certification body to conduct the necessary testing will hold ISO 17025 accreditation for the testing that is being undertaken. (Note that previous test evidence is not usually acceptable for certification.) The standard against which the product(s)/material(s) are tested is often a British or European standard, but this is not always the case. Certification bodies can test against any suitable publicly available standard and, if none is available, they will create their own test standard.
5. If all aspects of the certification process are found to be satisfactory, the certification body issues certification documentation (complying with/ accredited against the requirements of ISO Guide 65).
6. In most cases, the certification body places a copy of the certification documentation in the public domain (generally in an online directory). This is so that anyone who is handed a copy of the documentation can verify that what they have been provided with is both authentic and valid.

5 THIRD PARTY PRODUCT CERTIFICATION (CONT'D)

7. The certification body provides labels that include a "certification mark" (or a licence to use the certification mark) to themanufacturer/supplier.
   The manufacturer / supplier is able to apply the "certification mark" to each product that they manufacture that is covered by the scope of the certification (as described in the certification documentation).
   The inclusion of the "certification mark" on a product lets anyone who looks at it know that the product is independently certificated.
8. The certification body carries out follow up (repeat) QMS and FPC audits at defined intervals (usually a minimum of annually). During these audits the certification body verifies that the aspects of current production (and production that has occurred between this and the previous audit) are identical in all respects to those that were being utilized when the initial audits were conducted, and the test samples were selected (i.e.verification that manufacturing methods, processes, raw material utilizedetc are identical).
9. The certification body arranges for follow up (repeat) testing of product(s) / material(s) at defined intervals.
   The samples that are subjected to follow up testing are selected by the certification body from the manufacturing production line, the manufacturer's stock or the open market. This follow up testing is conducted to ensure continual compliance of the product(s) / material(s) with the relevant test standard.
10. If at any point during the certification process any anomalies are found by the certification body that could affect the performance of the product/ material when subjected to the relevant test standard(s), this may result in suspension, withdrawal or cancellation of the certification (and also cancellation of the right of the manufacturer/supplier to use the "certification mark" on their products) along with a recall of all product(s) material(s) that have been sold that are considered to have had their performance affected by the anomaly in question.

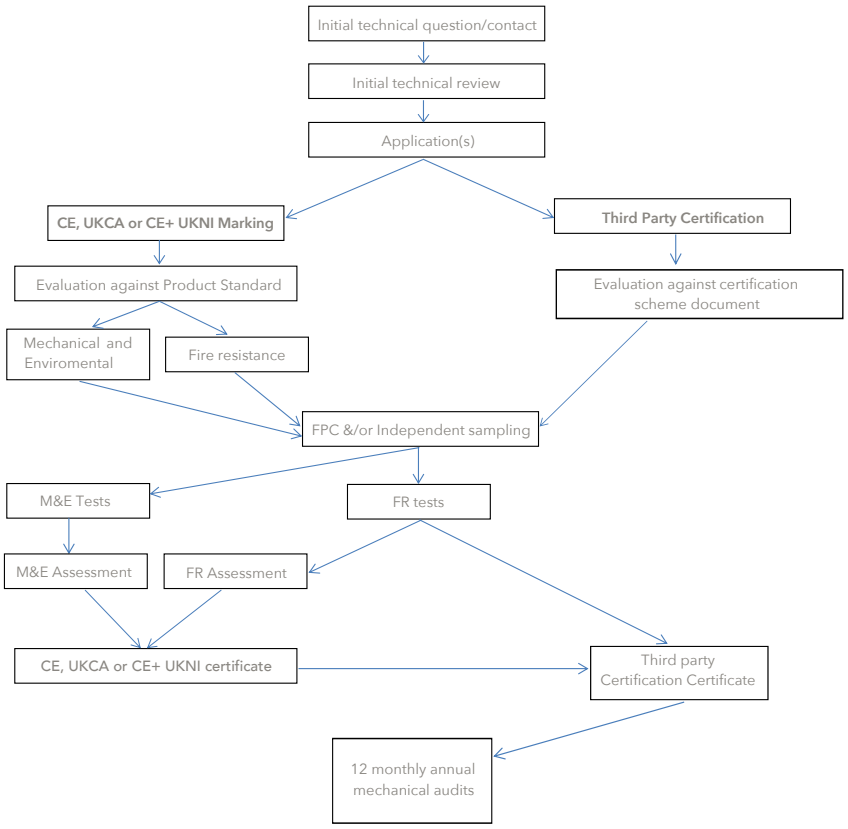
5 THIRD PARTY PRODUCT CERTIFICATION (CONT'D)

Figure 3 shows an example of a process map for both third party certification for products requiring fire testing and CE, UKCA or CE+ UKNI certification. Certification provides end users with significantly increased confidence that what is being supplied to them is of an identical specification to the product/material that was tested.

This certificated scope represents the certification body's opinion as to the performance likely to be demonstrated on a fire test, on the basis of the evidence referred to. This certificate is provided to the client for its own purposes and the certification body cannot opine on whether it will be accepted by Building Control authorities or any other third parties for any purpose.

The different third-party certification schemes do vary to some degree in their rules, but the summary above outlines a typical scheme. Many such schemes are accredited by UKAS, the United Kingdom Accreditation Service. UKAS will audit the certification body to ensure, among other things, that the certification scheme rules are applied consistently. The product manufacturer is "certified" by the certification body; the certification body is "accredited" by UKAS.

Figure 3 - Example of a process map for conformity marking and third party certification



For further detail please refer to the Code of Practice: Hardware for fire and escape doors.
www.firecode.org.uk

Guild of Architectural Ironmongers

The Guild of Architectural Ironmongers (GAI) is the only trade body in the UK that represents the interests of the whole architectural ironmongery industry - architectural ironmongers, wholesalers and manufacturers. Its reputation is built on three key areas: education, technical support and community.

Its qualifications, education and CPD programmes are widely respected in the UK and overseas, including the GCC and Hong Kong. Its technical information service is the only specialist service of its kind, providing GAI members with comprehensive advice on issues relating to the legislation, regulations and standards governing the use of architectural ironmongery and related hardware. The GAI is run by the industry for the industry.

www.gai.org.uk

Door & Hardware Federation

The Door & Hardware Federation (DHF) represents all the key players in industrial, commercial and garage doors and gates, as well as the leading UK manufacturers and suppliers of building hardware, locks and architectural ironmongery.

With the ultimate aim of maintaining and raising quality standards throughout the industry, all DHF members must meet minimum standards of competence and customer service. They all operate within a Code of Conduct governing standards of workmanship, quality assurance, training, safety, business integrity and CE / UKCA marking compliance.

DHF provides professionals in all sectors of the building industry with a single source for technical expertise.

www.dhfonline.org.uk