

# Section 1.5

## Product and System Accreditation

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# Product accreditation

In order for construction products to be placed on the European market they need to comply with the requirements of the Construction Products Directive (CPD). The basic principle of the CPD is to ensure that products are fit for their intended use and can be freely traded across the European Economic Area thus establishing a single agreed standard of performance and system of certification. It applies both to products manufactured within and from outside of the European Community.

The CPD was implemented in the United Kingdom in 1991 and subsequently amended with the "CE Marking Directive", which came into force on 1st January 1995. These Regulations require products to be legally placed on the UK market and gives the conditions for products to bear the CE marking. The CPD replaces existing national standards and technical approvals with a single set of European-wide technical specifications. Any standard prefixed 'BS EN' is a European Standard and it is the harmonised parts of these standards which manufacturers must meet for the purpose of CE marking.

Under the CPD, a product bearing a CE mark will automatically be presumed to meet the requirements of the relevant technical specifications. It is, therefore, a visible declaration that the product complies with the CPD. A typical CE mark on an insulation product details the products dimensions, thermal performance and its reaction to fire classification. In order to display the CE mark, a product has to undergo a rigorous ten stage process.

When selecting suitable insulation products and construction systems, the building designer needs to be aware of the relevant statutory documents, associated reference documents and substantive certification relative to their specific project and choice of materials or systems that they wish to incorporate.

Building designers face a multitude of choices, both in the form of construction to be adopted for the building element and the materials that will comprise that element. In order for a new product or a proprietary system to establish its credibility and fitness for use it should be tested, and accredited or assessed by an independent third party who tests in accordance with recognised British, European or industry standards and test methods.

The introduction of new products or systems to the marketplace can be greatly simplified by obtaining independent third party certification from a United Kingdom Accredited Service approved testing body such as the British Board of Agrément (BBA), BRE LPC, BSI or the University of Salford. Acquiring third party certification also eases the process of acceptance by the relevant industry, by building control and by proving regulatory compliance. The British Standards Institute (BSI) Kitemark scheme is probably the best known symbol of product trust, integrity and quality, both customers and specifiers alike can be reassured that manufacturers having this associated with their product have satisfied the most rigorous of quality processes.

From a manufacturer's perspective it is important that the characteristics of their products are measured and clearly and accurately displayed if they are to be correctly identified and included in specifications. A BBA Certificate is only awarded to a product after it has successfully passed a comprehensive assessment which includes laboratory testing, on-site evaluations and production inspections. The latter is important in order to check that the manufacturer has a factory production control system in operation that will ensure the specification of the product will be consistently maintained. The main focus of the Agrément process is the evaluation of the extent to which the product allows compliance with relevant Building Regulations and other statutory requirements to be achieved. In the main, BBA Certification is most beneficial when new and/or innovative products or systems are being introduced to the market place or an existing product is being used in an application other than that for which it was originally certificated.



A **British Board of Agrément Certificate** is proof that a product or system has been tested by a registered third party laboratory which tests in accordance with United Kingdom Accreditation Service requirements (UKAS) which includes site inspections and factory production control.

The Certificate focuses on application testing and evaluation of the fitness for use of the product and provides guidance on design of works and the appropriate installation of products. The product's performance is regularly monitored and the BBA Certificate gives the user or installer of the product confidence that the product is fit for its intended purpose and provides the specifier with a guarantee that his product specification is robust and fit for purpose.

BBA Certificates are generally obtained to support new products introduced to the marketplace and they also ease the process of acceptance by the relevant industry, by proving regulatory compliance.



**Bureau Veritas** is a global leader in conformity assessment and certification services. They independently evaluate management systems for compliance with a specific standard including International Management Standards for sustainability, namely ISO 9001 (Quality Management), ISO 14001 (Environmental Management), EN 16001 (Energy Management) and OHSAS 18001 (Health and Safety Management). These are process, not product standards.

# System accreditation

There are many instances where products can be shown to meet statutory requirements due to the fact that they are installed in well established construction systems with proven low technical risk, enabling designers to specify a product based purely on its performance characteristics. In these instances the product/systems performance, fitness for use and compliance with statutory requirements has been established over a long period of successful installation. The installation of low density glass mineral wool products between timber joists, at ceiling level, in pitched roof constructions, is a good example of this type of system solution.

There are many ways in which a construction system can be proven to comply with the relevant part of the UK Building Regulations. The system would typically be tested in accordance with a British or European Standard, or even assessed against an existing system that is proven to meet the requirements. The performance of an element of a building will be partly dependent on two things: the materials or products that make up that element and the standard of workmanship used to install or construct the element.

In order to confirm that a construction system/solution is adequate for the purpose for which it is intended (and thus complies with the requirements of the Building Regulations) it is beneficial to acquire third party accredited product conformity or system certification.

This type of accreditation provides a credible means of identifying materials, design and performance of systems and products or structures which have demonstrated that they meet or have the potential to meet the required performance standard if they are correctly installed.

Since the performance of a product, component or structure is dependent upon satisfactory site installation: independent schemes of certification and accreditation of installers provide confidence in the appropriate standard of workmanship being provided. For instance, our injected Supafil Cavity Wall insulation can only be installed by persons who are approved by Knauf Insulation and the British Board of Agrément, these installers are also subject to supervision by Knauf Insulation including unannounced spot checks.

Third party accreditation of installers of systems, materials, products or structures provides a means of ensuring that installations have been conducted by knowledgeable contractors to appropriate standards, thereby increasing confidence that the specified performance has been achieved.

There are many instances where the building designer requires substantive proof that their proposed forms of construction meet a statutory requirement. For instance, the acoustic performance of a separating wall or floor needs to comply with the performance requirements of Approved Document E or be designed and installed as a Robust Detail, whilst the integrity of insulated structural steelwork has to comply with the requirements of Approved Document B, which in turn makes reference to specific British Standards.

One other example is for a product manufacturer to acquire third party certification in support of a product or combinations of products which form part of a proprietary system which can then be shown to meet the performance requirements of the Building Regulations.

For instance, our ThermoShell Internal Wall Insulation system has been independently tested by an accredited third party (British Board of Agrément) to determine that it is 'fit for use' in the application for which it is intended and complies with the relevant Building Regulations, and other statutory or non-statutory requirements.

This third party accreditation can then be presented to building designers, specifiers and local authority building control officers to substantiate proof of performance of this proprietary system.



**Eurofins Indoor Air Comfort** Certification programme combines the criteria of mandatory and voluntary product regulation set up by national organisations and private labelling bodies, such as Blue Angel, M1, AgBB, AFSSET and more. This ensures that a certified product meets the highest possible standard for the relevant product group as well as ensuring compliance with any subsequent third party audit. This certification shows compliance with all relevant European specifications and as a result, a certified product can apply for any other relevant label on the basis of its Eurofins "Indoor Air Comfort Gold Standard" certification.



The **CE Mark** is a declaration by a manufacturer that a product fulfils the essential requirements of the Construction Products Directive (89/106/EEC). In gaining the CE mark a certain amount of third party product testing is required and the CE marking requirements for the factory production control system are met with a quality management system complying with BS EN ISO 9000. The Construction Products Directive applies to factory made thermal insulation products for buildings and compliance with the Construction Products Directive (89/106/EEC) is a legal requirement. CE marking is a visible sign of meeting that legal obligation (in most European States CE marking is itself mandatory). Product standards and test methods are common throughout Europe, so one test covers all countries which enables consumers to differentiate between products and allows direct comparison of product performance.

By displaying the CE mark on products consumers can be assured that all relevant European product standards are being met.

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