

Regulation 7 of the Building Regulations

This approved document gives guidance on how to meet regulation 7 of the Building Regulations 2010.

Regulation

Materials and workmanship

- 7.** (1) Building work shall be carried out—
- (a) with adequate and proper materials which—
 - (i) are appropriate for the circumstances in which they are used,
 - (ii) are adequately mixed or prepared, and
 - (iii) are applied, used or fixed so as adequately to perform the functions for which they are designed; and
 - (b) in a workmanlike manner.

Performance and limitations

Performance

In the Secretary of State's view, you will meet the requirements of regulation 7 if you satisfy both of the following conditions.

- a. **Materials** are of a suitable nature and quality in relation to the purposes and conditions of their use.
- b. Workmanship is such that, where relevant, **materials** are adequately mixed or prepared and applied, used or fixed so as to perform adequately the functions for which they are intended.

Materials include:

- a. manufactured products such as components, fittings, items of equipment and systems
- b. naturally occurring **materials** such as stone, timber and thatch
- c. backfilling for excavations in connection with building work.

Limitations

Regulation 7 applies to all building work. However, in accordance with regulation 8 and Schedule 1, the standards of **materials** and workmanship need be no more than are necessary to:

- a. *for Parts A–D, F–K, N and P (except for paragraphs G2, H2 and J7) of Schedule 1:* secure reasonable standards of health or safety for people in or about the building
- b. *for Part E of Schedule 1:* secure reasonable resistance to the passage of sound for the welfare and convenience of people in or about the building
- c. *for Part L of Schedule 1:* conserve fuel and power
- d. *for Part M of Schedule 1:* provide access to buildings and their facilities for people.

Section 1: Materials

- 1.1** Building work must meet the functional requirements of Schedule 1 to the Building Regulations. Approved documents refer to **materials** covered by harmonised European product standards, British Standards and other technical specifications. However, there is no obligation to adopt any particular solution contained in an approved document in order to meet functional requirements; the references are not exclusive and other **materials** may be suitable in the particular circumstances.

Ways of establishing the fitness of materials

- 1.2** You can assess the suitability of a **material** for use for a specific purpose in a number of ways, as described in paragraphs 1.3 to 1.21.

CE marking under the Construction Products Regulation

- 1.3** Many **materials** are construction products that have CE marking under the Construction Products Regulation (305/2011/EU-CPR).

The Construction Products Regulation requires that construction products on the EU market covered by a harmonised European product standard should normally have CE marking. In addition, manufacturers of products not covered by a harmonised standard can choose to affix CE marking to their products by obtaining a **European Technical Assessment**.

NOTE: You can find a list of the harmonised product standards under the Construction Products Regulation on the **NANDO** information system website at <http://ec.europa.eu/enterprise/newapproach/nando/index.cfm?fuseaction=cpd.hs>.

- 1.4** CE marking includes the reference of the product standard and the levels or classes of performance being declared against some or all of the characteristics covered by the standard. The CE marking should be on the product, its label, the packaging or accompanying documents. The CE symbol by itself does not necessarily indicate that the **material** is suitable for the building work.
- 1.5** In addition to CE marking, the product will have a declaration of performance containing more detailed information on the product. This may be a paper or electronic document, or it may be on a website.

It is essential to check that the declared performance is suitable for the building works.

- 1.6** In the absence of indications to the contrary, the **building control body** should assume that the information given in the CE marking and declaration of performance is accurate and reliable, and that the product meets the declared performance.
- 1.7** If the declared performance of a product is suitable for its intended use, the **building control body** should not prohibit or impede the use of the product.

CE marking under other EU directives and regulations

- 1.8** Products may have CE marking under European legislation such as the Gas Appliances Directive or the Pressure Equipment Directive. Such CE marking shows that the product meets the essential requirements set out in the legislation – for example, minimum safety requirements – and can be placed on the EU market.

- 1.9** Some products have CE marking in accordance with both the Construction Products Regulation and other legislation. The CE marking shows that the product complies with the requirements in all relevant EU legislation.

British Standards

- 1.10** Nearly all British Standards for construction products are the British versions of harmonised European standards used for CE marking. The BSI numbering policy is to adopt the CEN numbering, prefaced with BS, e.g. **BS EN 197-1:2000**.
- 1.11** Some British Standards are the British version of non-harmonised European standards; these also adopt the CEN numbering, prefaced with BS. These do not contain an Annex ZA, so CE marking cannot be affixed to products made to these standards.
- 1.12** Some British Standards for products not covered by a European standard will continue to exist.
- 1.13** Where a construction product has been made and assessed in accordance with one or more British Standards referred to in 1.11 and 1.12, this may show whether the product is suitable for its intended use.

Other national and international technical specifications

- 1.14** An international technical specification, including those prepared by ISO, or a national technical specification of a country other than the UK, may be used to demonstrate that a product not covered by a harmonised European standard meets the performance requirements of the Building Regulations.

Where necessary, the person who intends to carry out the work should obtain translations of specifications and demonstrate how the material meets the requirements of regulation 7.

NOTE: The national technical specifications of EU member states (and non-EU countries that are full members of CEN) are being progressively replaced by harmonised European standards, as is the case with British Standards.

Independent certification schemes

- 1.15** There are many independent product certification schemes in the UK and elsewhere that may provide information on the performance of a product. Such schemes certify that a material complies with the requirements of a recognised document and indicates it is suitable for its intended purpose and use. These may be in addition to, but not conflict with, CE marking.
- NOTE:** Materials which are not certified by an independent scheme might still conform to a relevant standard.
- 1.16** Accreditation of a certification body by a national accreditation body belonging to the European co-operation for Accreditation (EA) provides a means of demonstrating that their certification scheme can be relied upon. In the UK, most independent certification bodies are accredited by the United Kingdom Accreditation Service (UKAS), which belongs to the EA.

It is important to check the scope of the accreditation of a certification body, as accreditation might cover only part of the certification body's testing or certification business.

Tests and calculations

- 1.17** Where there is no relevant harmonised European standard, tests, calculations or other means may be used to demonstrate that the material can perform the function for which it is intended. UKAS or an equivalent national accreditation body belonging to the EA may accredit the testing laboratories; this accreditation provides a means of showing that tests can be relied on.

Past experience

- 1.18** Past experience, such as use in an existing building, may show that the **material** can perform the function for which it is intended.

Sampling

- 1.19** Under regulation 46 of the Building Regulations, local authorities have the power to take samples as necessary to establish whether **materials** to be used in building work comply with the provisions of the regulations.
- 1.20** Regulation 46 does not apply to any work specified in an initial notice or to any work for which a final certificate has been given by an approved inspector and accepted by the local authority.
- 1.21** Regulation 8 of the Building (Approved Inspectors etc.) Regulations 2010 provides that an approved inspector, having given an initial notice which continues to be in force, may take samples of **material** as are reasonable to establish within the limits of professional skill and care that regulation 7 of the Building Regulations or any other applicable regulations are complied with.

Short-lived materials

- 1.22** Some **materials**, in the absence of special care, may be considered unsuitable because of their rapid deterioration in relation to the expected life of the building.
- 1.23** A short-lived **material** which is readily accessible for inspection, maintenance and replacement may meet the requirements of the regulations if the consequences of failure are not likely to be serious to the health or safety of people in and around the building.
- 1.24** If a short-lived **material** is not readily accessible for inspection, maintenance and replacement, and the consequences of failure are likely to be serious for health or safety, it is unlikely that the **material** will meet the requirements of the regulations.
- 1.25** As noted in paragraph 0.2, local authorities have the power to impose conditions on the use of short-lived **materials**.

Materials susceptible to changes in their properties

- 1.26** The properties of some **materials** can change in certain environmental conditions. These changes can affect the performance of the **materials** over time.
- 1.27** **Materials** that are susceptible to changes in their properties may be used in building work and will meet the requirements of the regulations if the residual properties, including the structural properties, meet both of the following conditions.
- Residual properties can be estimated at the time of their incorporation in the work.
 - Residual properties are shown to be adequate for the building to perform the function for which it is intended, for the expected life of the building.

Non-combustible materials in external walls of tall buildings

- 1.28** The Building Regulations restrict the use of combustible **materials** in the external walls of certain buildings over 18m in height. Refer to regulation 7(2) of the Building Regulations and to Approved Document B: volume 2, part B4 for details.

Section 2: Workmanship

Ways of establishing the adequacy of workmanship

2.1 Examples of ways to establish the adequacy of workmanship are described in paragraphs 2.2 to 2.11.

CE marking

2.2 If a material has CE marking, workmanship may be specified in the relevant European Technical Assessment or harmonised product standard.

Standards

2.3 Methods of carrying out different types of work are also given in British Standards or other appropriate technical specifications.

NOTE: The **BS 8000** series of standards on workmanship on building sites combines guidance from other **BSI** codes and standards. The various parts of **BS 8000** are listed in appendix B.

Independent certification schemes

2.4 Some independent certification schemes specify how workmanship will deliver a declared level of performance. The person carrying out the work should show that the workmanship will provide the appropriate level of protection and performance.

2.5 Schemes, including competent person self-certification schemes, that register installers of materials can provide a means of ensuring that work has been carried out by knowledgeable contractors to appropriate standards.

Management systems

2.6 The quality of workmanship is covered by a quality management scheme, such as one that complies with the relevant recommendations of **BS EN ISO 9000** and related series of standards. There are a number of such **UKAS**-accredited schemes.

Past experience

2.7 Past experience, such as use in an existing building, may show that workmanship is appropriate for the function for which it is intended.

Tests

2.8 Tests can be used to show that workmanship is appropriate.

2.9 In the following three instances, the Building Regulations require those carrying out building work to have testing carried out to demonstrate compliance.

- a. Sound insulation as described in regulation 41.
- b. Air flow rate of mechanical ventilation as described in regulation 42.
- c. Pressure testing as described in regulation 43.

- 2.10** Under regulation 45 of the Building Regulations 2010, regulation 8 of the Building (Approved Inspectors etc.) Regulations 2010 and section 33 of the Building Act 1984, **building control bodies** have powers to make tests as they consider necessary to establish whether building work complies with the requirements of regulation 7.
- 2.11** Those carrying out building work may voluntarily include testing in the activities they carry out to demonstrate that the work complies with the requirements of the regulations.

Appendix A: Key terms

The following are key terms used in this document:

BSI

The British Standards Institution is the UK national standards body. BSI publishes European standards in the UK as BS EN. Further information is available at: www.bsigroup.co.uk

Building control body

A local authority or an approved inspector.

CEN

The Comité Européen de Normalisation is the European standards body that prepares harmonised European product standards. Declarations of performance against such standards should provide sufficient information for any member state to allow the product onto its market and for specifiers and users to be able to assess whether the product is suitable for its intended use.

CEN also prepares non-harmonised European standards, such as test or calculation standards and standards for products or services that have not been mandated under a CE Marking Directive.

CEN does not issue standards directly, only through national standards bodies; BSI is the designated standards body for the UK.

Further information is available at: www.cen.eu

EA

The European co-operation for Accreditation is the umbrella organisation for all national accreditation bodies in Europe. Product certification bodies, inspection bodies and test laboratories approved by national accreditation bodies belonging to EA are equivalent to those approved by UKAS.

Further information is available at: www.european-accreditation.org

European Technical Assessments

A favourable technical assessment issued under the European Construction Products Regulation 2011 that allows a manufacturer to affix CE markings on their products. Further information is available at: www.eota.eu

ISO

The International Organization for Standardization is the worldwide federation of national standards institutions. Standards are identified by 'ISO' and a number. ISO standards may be published separately or transposed into the UK as BS ISO or BS EN ISO. Further information is available at: www.iso.org

Materials

Materials include manufactured products such as components, fittings, items of equipment and systems; naturally occurring materials such as stone, timber and thatch; and backfilling for excavations in connection with building work.

NANDO

New Approach Notified and Designated Organisations is an information system produced by the European Commission. It lists the harmonised European standards and the bodies notified by member states to carry out conformity assessment tasks for CE marking. Further information is available at: <http://ec.europa.eu/enterprise/newapproach/nando>

UKAS

The United Kingdom Accreditation Service is the sole national accreditation body recognised by the UK government to assess, against internationally agreed standards, organisations that provide certification, testing, inspection and calibration services. Accreditation by UKAS demonstrates the competence, impartiality and performance capability of these organisations. Further information is available at: www.ukas.com

Appendix B: Standards referred to

BS EN ISO 9000

Quality management systems. Fundamentals and vocabulary [2005]

BS EN ISO 9001

Quality management systems. Requirements [2008]

BS 8000-1

Workmanship on building sites. Code of practice for excavation and filling [1989]

BS 8000-2-1

Workmanship on building sites. Code of practice for concrete work. Mixing and transporting concrete [1990 + AMD 9324].

BS 8000-2-2

Workmanship on building sites. Code of practice for concrete work. Sitework with in situ and precast concrete [1990]

BS 8000-3

Workmanship on building sites. Code of practice for masonry [2001]

BS 8000-4

Workmanship on building sites. Code of practice for waterproofing [1989]

BS 8000-5

Workmanship on building sites. Code of practice for carpentry, joinery and general fixings [1990]

BS 8000-6

Workmanship on building sites. Code of practice for slating and tiling of roofs and claddings [1990]

BS 8000-7

Workmanship on building sites. Code of practice for glazing [1990]

BS 8000-8

Workmanship on building sites. Code of practice for plasterboard partitions and dry linings [1994]

BS 8000-9

Workmanship on building sites. Cementitious levelling screeds and wearing screeds. Code of practice [2003]

BS 8000-11

Workmanship on building sites. Internal and external wall and floor tiling. Ceramic and agglomerated stone tiles, natural stone and terrazzo tiles and slabs, and mosaics. Code of practice [2011]

BS 8000-12

Workmanship on building sites. Code of practice for decorative wallcoverings and painting [1989]

BS 8000-13

Workmanship on building sites. Code of practice for above ground drainage and sanitary appliances [1989]

BS 8000-14

Workmanship on building sites. Code of practice for below ground drainage [1989]

BS 8000-15

Workmanship on building sites. Code of practice for hot and cold water services (domestic scale) [1990]

BS 8000-16

Workmanship on building sites. Code of practice for sealing joints in buildings using sealants [1997 + A1:2010]

Appendix C: Documents referred to

Legislation

Building Act 1984 c.55 (as amended)

Building Regulations 2010 (SI 2010/2214) (as amended)

Building (Approved Inspectors etc.) Regulations 2010 (SI 2010/2215) (as amended)

Construction Products Regulation (305/2011/EU-CPR)

Gas Appliances Directive (2009/142/EC)

Pressure Equipment Directive (97/23/EC)

The Welsh Ministers (Transfer of Functions) (No. 2) Order 2009 (SI 2009/3019)