



Office of the
Deputy Prime Minister

Creating sustainable communities

The Building Regulations 2000

Toxic substances

D

APPROVED DOCUMENT

D1 **Cavity insulation**

ONLINE VERSION

1992 edition
incorporating 2002
amendments

Amendments to Approved Documents and Compliance Guides 2010

All references to the Building Regulations 2000 (as amended) should be read as references to the Building Regulations 2010.

All references to the Building (Approved Inspectors etc.) Regulations 2000 should be read as references to the Building (Approved Inspectors etc.) Regulations 2010.

There have been no substantive requirements amendments to either set of regulations, but please note the simplification of the definition of 'room for residential purposes' in regulation 2 of the Building Regulations 2010. Please also note that L1(c) has now become regulation 40.

The following tables will help you to find the new regulation number for regulations which have been re-numbered in the 2010 Regulations. For any regulation number not included in the tables below, the number of the regulation has not changed.

Building Regulations

Regulation number in Building Regulations 2000	Regulation number in Building Regulations 2010	Regulation number in Building Regulations 2000	Regulation number in Building Regulations 2010	Regulation number in Building Regulations 2000	Regulation number in Building Regulations 2010
2(2A)	2(3)	12(7)	12(8)	20AA	42
2(2B)	2(4)	13(2)(c)(iii)	13(2)(ii)	20B	43
2(2C)	2(5)	13(3)	deleted	20C(A1)	44(1)
2(3)	deleted	13(5)	13(3)	20C(1)	44(2)
3(1)(g)	3(1)(h)	13(6)	13(4)	20C(2)	44(3)
3(1)(h)	3(1)(g)	13(7)	13(5)	20C(3)	44(4)
4(1A)	4(2)	14(3)(aa)	14(3)(b)	20D	27
4(2)	4(3)	14(3)(b)	14(3)(c)	20E	37
4A	23	14A	15	21(1)	18(1)
4B(1)	22	15	16	21(2)	18(8)
4B(2)	deleted	16A	20	21(3)	18(2)
6(1)(cc)	6(1)(d)	16B	38	21(4)	18(3)
6(1)(d)	6(1)(e)	16C	39	21(5)	18(4)
6(1)(e)	6(1)(f)	17A	24	21(6)	18(5)
6(1)(f)	6(1)(g)	17B	25	21(7)	18(6)
6(1)(ff)	6(1)(h)	17C	26	21(8)	18(7)
6(1)(g)	6(1)(i)	17D	28	22	47
9(1A)	9(2)	17E(4)	29(5)	22B(1)(a)	48(1)(a)
9(2)	9(3)	17E(5)	29(4)	22B(1)(b)	48(1)(b)
9(3)	21(1)	17F	30	22B(1)(c)	48(1)(c)
9(4)	21(2)	17G	31	22B(1)(d)	48(1)(g)
9(5)	21(3)	17H	32	22B(1)(e)	48(1)(d)
9(5A)	21(4)	17I	33	22B(1)(f)	48(1)(i)
9(6)	21(5)	17J	35	22B(1)(g)	48(1)(j)
12(2)	12(1)	17K	36	22B(1)(h)	48(1)(l)
12(2A)	12(2)	18	45	22B(1)(ha)	48(1)(m)
12(4A)	12(5)	19	46	22B(1)(i)	48(1)(n)
12(5)	12(6)	20	19	22B(1)(j)	48(1)(o)
12(6)	12(7)	20A	41	22B(1)(k)	48(1)(h)
22B(1)(ka)	48(1)(k)	J2A	J3	J6	J7
22B(1)(l)	48(1)(e)	J3	J4	L1(c)	Regulation 40
22B(1)(m)	48(1)(f)	J4	J5	Schedule 2A	Schedule 3
22B(2)	48(2)	J5	J6	Schedule 2B	Schedule 4

Building (Approved Inspectors etc.) Regulations

Regulation number in Building (Approved Inspectors etc.) Regulations 2000	Regulation number in Building (Approved Inspectors etc.) Regulations 2010	Regulation number in Building (Approved Inspectors etc.) Regulations 2000	Regulation number in Building (Approved Inspectors etc.) Regulations 2010	Regulation number in Building (Approved Inspectors etc.) Regulations 2000	Regulation number in Building (Approved Inspectors etc.) Regulations 2010
1	1 and 38	13(1)(d)	12(6)(c)	25(2)	25(3)
3	4	13(2)	12(1)	25(3)	25(4)
4	3	13(3)	12(2)	31A(a)	32(c)
8	10	13(4)	12(3)	31A(b)	32(c)
9	11	13(5)	12(4)	31A(c)	32(e)
10(1)	9(5)	13(6)	12(5)	31A(d)	32(f)
10(2)	9(1)	13A	13	31A(e)	32(h)
10(3)	9(2)	14	14(1)	31A(ea)	32(i)
10(4)	9(3)	15(1)	14(2)	31A(f)	32(j)
10(5)	9(4)	15(2)	14(3)	31A(g)	32(k)
11(1)(a)	8(1)(a)	15(3)	14(4)	31A(h)	32(d)
11(1)(c)	8(1)(b)	16	15	31A(ha)	32(g)
11(2)	8(2)	17	16	31A(i)	32(a)
11A	20(1)	18(1)	17(1)	31A(j)	32(b)
12	20(1) and (3)	18(2)	17(2) and (3)	*Sch 3 7A	Sch 2 8
12A	20(1) and (5)	18(3)	17(4)	Sch 3 8	Sch 2 9
12AA	20(1)	18(4)	17(5)	Sch 3 9	Sch 2 10
12B	20(1)	18(5)	17(6)	Sch 4 7A	Sch 3 8
12C	20(1) and (6)	18(6)	17(7)	Sch 4 8	Sch 3 9
12D	20(1) and (2)	19	18	Sch 6 5A	Sch 5 6
12E	20(1) and (4)	20	19	Sch 6 6	Sch 6 7
13(1)	12(6)	23A	24		
13(1)(b)	12(6)(a)	24	25(1)		
13(1)(c)	12(6)(b)	25(1)	25(2)		

Please note that some of the numbering and cross referencing in the forms in Schedule 1 has changed slightly.

*Sch =Schedule

Use of guidance

THE APPROVED DOCUMENTS

The Building Regulations 2000 (SI 2000/2531), which came into operation on 1 January 2001, replace the Building Regulations 1991 (SI 1991/2768) and consolidate all subsequent revisions to those regulations. This document is one of a series that has been approved and issued by the Secretary of State for the purpose of providing practical guidance with respect to the requirements of Schedule 1 to and Regulation 7 of the Building Regulations 2000 for England and Wales.

At the back of this document is a list of all the documents that have been approved and issued by the Secretary of State for this purpose.

Approved Documents are intended to provide guidance for some of the more common building situations. However, there may well be alternative ways of achieving compliance with the requirements. **Thus there is no obligation to adopt any particular solution contained in an Approved Document if you prefer to meet the relevant requirement in some other way.**

Other requirements

The guidance contained in an Approved Document relates only to the particular requirements of the Regulations which the document addresses. The building work will also have to comply with the requirements of any other relevant paragraphs in Schedule 1 to the Regulations.

There are Approved Documents which give guidance on each of the parts of Schedule 1 and on Regulation 7.

LIMITATION ON REQUIREMENTS

In accordance with Regulation 8, the requirements in Parts A to K and N of Schedule 1 to the Building Regulations do not require anything to be done except for the purpose of securing reasonable standards of health and safety for persons in or about buildings (and any others who may be affected by buildings or matters connected with buildings).

MATERIALS AND WORKMANSHIP

Any building work which is subject to the requirements imposed by Schedule 1 to the Building Regulations should, in accordance with Regulation 7, be carried out with proper materials and in a workmanlike manner.

You may show that you have complied with Regulation 7 in a number of ways. These include the appropriate use of a product bearing CE marking in accordance with the Construction Products Directive (89/106/EEC)¹ as amended by the CE Marking Directive (93/68/EEC)², or a product complying with an appropriate technical specification (as defined in those Directives),

a British Standard, or an alternative national technical specification of any state which is a contracting party to the European Economic Area which, in use, is equivalent, or a product covered by a national or European certificate issued by a European Technical Approval issuing body, and the conditions of use are in accordance with the terms of the certificate. You will find further guidance in the Approved Document supporting Regulation 7 on materials and workmanship.

Independent certification schemes

There are many UK product certification schemes. Such schemes certify compliance with the requirements of a recognised document which is appropriate to the purpose for which the material is to be used. Materials which are not so certified may still conform to a relevant standard.

Many certification bodies which approve such schemes are accredited by UKAS.

Technical specifications

Building Regulations are made for specific purposes: health and safety, energy conservation and the welfare and convenience of disabled people. Standards and technical approvals are relevant guidance to the extent that they relate to these considerations. However, they may also address other aspects of performance such as serviceability, or aspects which although they relate to health and safety are not covered by the Regulations.

When an Approved Document makes reference to a named standard, the relevant version of the standard is the one listed at the end of the publication. However, if this version has been revised or updated by the issuing standards body, the new version may be used as a source of guidance provided it continues to address the relevant requirements of the Regulations.

The appropriate use of a product which complies with a European Technical Approval as defined in the Construction Products Directive will meet the relevant requirements.

The Department intends to issue periodic amendments to its Approved Documents to reflect emerging harmonised European Standards. Where a national standard is to be replaced by a harmonised European Standard, there will be a co-existence period during which either standard may be referred to. At the end of the co-existence period the national standard will be withdrawn.

¹ As implemented by the Construction Products Regulations 1991 (SI 1991/1620).

² As implemented by the Construction Products (Amendment) Regulations 1994 (SI 1994/3051).

**THE WORKPLACE (HEALTH,
SAFETY AND WELFARE)
REGULATIONS 1992**

The Workplace (Health, Safety and Welfare) Regulations 1992 contain some requirements which affect building design. The main requirements are now covered by the Building Regulations, but for further information see: *Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved code of practice and guidance, 1998.* HSE, L 24. ISBN 0 71760 413 6.

The Workplace (Health, Safety and Welfare) Regulations 1992 apply to the common parts of flats and similar buildings if people such as cleaners and caretakers are employed to work in these common parts. Where the requirements of the Building Regulations that are covered by this part do not apply to dwellings, the provisions may still be required in the situations described above in order to satisfy the Workplace Regulations.

The Requirement

This Approved Document deals with the following Requirement from Part D of Schedule 1 to the Building Regulations 2000.

Requirement

Limits on application

Cavity insulation

D1. If insulating material is inserted into a cavity in a cavity wall reasonable precautions shall be taken to prevent the subsequent permeation of any toxic fumes from that material into any part of the building occupied by people.

Acceptable level of performance

To reduce the risks to the health of persons in buildings formaldehyde fumes given off by urea formaldehyde foams should not penetrate to the occupied parts of buildings to an extent which would give rise to an irritant concentration.

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Provisions meeting the performance

Urea formaldehyde (UF) foam

1.1 Insulating materials which give off formaldehyde fumes (either when used or later in normal use) may be used to insulate the cavity in a cavity wall where there is a continuous barrier which will minimise as far as practicable the passage of fumes to the occupiable parts.

Technical solution

1.2 A cavity wall may be insulated with UF foam where:

- a. the **inner leaf** of the wall is built of masonry (bricks or blocks); and
- b. the **suitability** of the wall for foam filling is assessed before the work is carried out in accordance with BS 8208-1:1985 Guide to assessment of suitability of external cavity walls for filling with thermal insulants. Existing traditional cavity construction; and
- c. the **person** carrying out the work holds (or operates under) a current Certificate of Registration of Assessed Capability for the work he is doing; and
- d. the **material** is in accordance with the relevant recommendations of BS 5617:1985 Specifications for urea formaldehyde (UF) foam systems suitable for thermal insulation of cavity walls with masonry or concrete inner and outer leaves; and
- e. the **installation** is in accordance with BS 5618:1985 Code of practice for thermal insulation of cavity walls (with masonry or concrete inner and outer leaves) by filling with urea formaldehyde (UF) foam systems.

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Standards referred to

D1

BS 5617:1985

Specification for urea formaldehyde (UF) foam systems suitable for thermal insulation of cavity walls with masonry or concrete inner and outer leaves.

BS 5618:1985

Code of practice for thermal insulation of cavity walls (with masonry or concrete inner and outer leaves) by filling with urea formaldehyde (UF) foam systems. AMD 6262 1990, AMD 7114 1992.

BS 8208-1:1985

Guide to assessment of suitability of external cavity walls for filling with thermal insulants. Existing traditional cavity construction. AMD 4996 1985.

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APPROVED DOCUMENTS

The following documents have been approved and issued by the First Secretary of State for the purpose of providing practical guidance with respect to the requirements of the Building Regulations 2000 (as amended).

Approved Document A: Structure

2004 edition incorporating 2004 amendments

Approved Document B: Fire safety

2000 edition incorporating 2000 and 2002 amendments

Approved Document C: Site preparation and resistance to contaminants and moisture

2004 edition

Approved Document D: Toxic substances

1992 edition incorporating 2002 amendments

Approved Document E: Resistance to the passage of sound

2003 edition incorporating 2004 amendments

Approved Document F: Ventilation

2006 edition

Approved Document G: Hygiene

1992 edition incorporating 1992 and 2000 amendments

Approved Document H: Drainage and waste disposal

2002 edition

Approved Document J: Combustion appliances and fuel storage systems

2002 edition

Approved Document J: 2002 Edition: Guidance and Supplementary Information on the UK Implementation of European Standards for Chimneys and Flues

2002 edition

Approved Document K: Protection from falling collision and impact

1998 edition incorporating 2000 amendments

Approved Document L1A: Conservation of fuel and power

New dwellings
2006 edition

Approved Document L1B: Conservation of fuel and power

Existing dwellings
2006 edition

Approved Document L2A: Conservation of fuel and power

New buildings other than dwellings
2006 edition

Approved Document L2B: Conservation of fuel and power

Existing buildings other than dwellings
2006 edition

Approved Document M: Access to and use of buildings

2004 edition

Approved Document N: Glazing – safety in relation to impact, opening and cleaning

1998 edition incorporating 2000 amendments

Approved Document P: Electrical safety – Dwellings

2006 edition

Approved Document to support regulation 7: Materials and workmanship

1992 edition incorporating 2000 amendments

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Published by NBS, part of RIBA Enterprises Ltd, and available from:

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Renew Rooms, 82 Wood Street, Liverpool L1 4DQ. Telephone 0151 707 4380.

ISBN-10 1 85946 203 0
ISBN-13 978 1 85946 203 4
Stock code 56656

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ISBN 1-859462-03-0



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