

The Building Regulations 2010

**Toxic substances**

**D**

**APPROVED DOCUMENT**

**D1 Cavity insulation**

## **MAIN CHANGES MADE BY THE 2010 AMENDMENTS**

The 2010 amendments reflect the changes made as a result of the Building Regulations 2010 and Building (Approved inspector etc) Regulations 2010. These were mainly regulation number changes as a result of re-ordering. There were no amendments to the substantive requirements in Schedule 1 (i.e. Parts A to P) of the Building Regulations.

## **CHANGES MADE BY THE 2013 AMENDMENTS**

The changes, which apply only to England\*, were to guidance on materials and workmanship.

There were no changes to Part D of Schedule 1 to the Building Regulations 2010.

\*This approved document gives guidance for compliance with the Building Regulations for building work carried out in England. It also applies to building work carried out on excepted energy buildings in Wales as defined in the Welsh Ministers (Transfer of Functions) (No 2) Order 2009.

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# Use of guidance

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## THE APPROVED DOCUMENTS

The Building Regulations 2010 (SI 2010/2214), which came into operation on 1 October 2010, replace the Building Regulations 2000 (SI 2000/2531) 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 2010 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 Part D 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 shall be carried out in accordance with regulation 7. Guidance on meeting these requirements on materials and workmanship is contained in Approved Document 7.

Building Regulations are made for specific purposes, primarily the health and safety, welfare and convenience of people and for energy conservation. Standards and other technical specifications may provide relevant guidance to the extent that they relate to these considerations. However, they may also address other aspects of performance or matters which, although they relate to health and safety etc., are not covered by the Building Regulations.

When an Approved Document makes reference to a named standard, the relevant version of the standard to which it refers 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 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 2010.

<i>Requirement</i>	<i>Limits on application</i>
<b>Cavity insulation</b> <b>D1.</b> 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.	

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## Acceptable level of performance

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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

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## 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

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### 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.



## LIST OF APPROVED DOCUMENTS

The following documents have been published to give guidance on how to meet the Building Regulations. You can find the date of the edition approved by the Secretary of State at [www.gov.uk](http://www.gov.uk).

**Approved Document A**  
Structure

**Approved Document B**  
Fire safety  
Volume 1: Dwellinghouses  
Volume 2: Buildings other than dwellinghouses

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

**Approved Document D**  
Toxic substances

**Approved Document E**  
Resistance to the passage of sound

**Approved Document F**  
Ventilation

**Approved Document G**  
Sanitation, hot water safety and water efficiency

**Approved Document H**  
Drainage and waste disposal

**Approved Document J**  
Combustion appliances and fuel storage systems

**Approved Document K**  
Protection from falling, collision and impact

**Approved Document L1A**  
Conservation of fuel and power in new dwellings

**Approved Document L1B**  
Conservation of fuel and power in existing dwellings

**Approved Document L2A**  
Conservation of fuel and power in new buildings other than dwellings

**Approved Document L2B**  
Conservation of fuel and power in existing buildings other than dwellings

**Approved Document M**  
Access to and use of buildings  
Volume 1: Dwellings  
Volume 2: Buildings other than dwellings

**Approved Document P**  
Electrical Safety – Dwellings

**Approved Document Q**  
Security – Dwellings

**Approved Document 7**  
Materials and workmanship

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