Building Regulations, 1991

TECHNICAL GUIDANCE DOCUMENT D
MATERIALS & WORKMANSHIP

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BUILDING REGULATIONS, 1991

TECHNICAL GUIDANCE DOCUMENT D MATERIALS AND WORKMANSHIP

INTRODUCTION

This document has been published by the Minister for the Environment under article 5 of the Building Regulations, 1991, for the purpose of providing guidance with regard to compliance with the requirements of Part D of the First Schedule to the Regulations. Where works are carried out in accordance with this guidance, this will, prima facie, indicate compliance with these requirements.

This document should be read in conjunction with the Regulations.

Guidance contained in this document with respect to the use of a particular material, method of construction, standard or other specification does not preclude the use of any other suitable material, method of construction, standard or specification.

TECHNICAL SPECIFICATIONS

Building Regulations are made for specific purposes i.e. health, safety and welfare of persons, energy conservation and the special needs of disabled people. Technical Specifications (including Harmonised European Standards, European Technical Approvals, National Standards and Agrément Certificates) are relevant to the extent that they relate to these considerations. Technical Specifications may also address other aspects of performance not covered by the Regulations.

The references in this document to named Technical Specifications, or to materials and methods which are likely to be suitable for the purposes of the Regulations, are not exclusive and other materials and methods may be suitable in particular circumstances. A reference to a Technical Specification is to the latest edition (including any amendments, supplements or addenda) current at the date of publication of this Technical Guidance Document.

MATERIALS AND WORKMANSHIP

Building Regulations - The Requirement

Part D of the First Schedule to the Building Regulations, 1991 provides as follows:

Materials and workmanship.	D1	All works to which these Regulations apply shall be carried out with proper materials and in a workmanlike manner.
Definition for this Part.	D2	In this Part, "proper materials" means materials which are fit for the use for which they are intended and for the conditions in which they are to be used, and includes materials which: (a) bear a CE Mark in accordance with the provisions of the Construction Products Directive (89/106/EEC); or (b) comply with an appropriate harmonized standard, European technical approval or national technical specification as defined in article 4(2) of the Construction Products Directive (89/106/EEC); or (c) comply with an appropriate Irish Standard or Irish Agrément Board Certificate or with an alternative national technical specification of any Member State of the European Community, which provides in use an equivalent level of safety and suitability.

GENERAL

0.1 Materials include products, components, fittings, items of equipment and backfilling for excavations.

Materials should be:

(a) of a suitable nature and quality in relation to the purposes and conditions of their use, and

(b) adequately mixed or prepared, and

(c) applied, used or fixed so as to perform adequately the functions for which they are intended.

Materials used in building work should, as far as is practicable, be free of CFC's.

TOLERANCES

0.2 Measurements for building components or materials, specified in Technical Guidance Documents, are subject to tolerances of normal building practice. BS 6954 : Part 1 : 1988 Tolerances for building, describes the nature of dimensional variability in building and the purposes for which it has to be quantified and defines the factors to be taken into account in the evaluation, specification and verification of tolerances for the manufacture of building components and for site work. It applies to components and buildings generally, including those designed in accordance with the principles of modular co-ordination.

Section 1

MATERIALS

FITNESS OF MATERIALS

1.1 In addition to establishing the fitness of a material for its intended use by reference to sub-paragraphs (a), (b) or (c) of paragraph D2 of the requirement, other methods which may be considered include -

(a) Independent certification by an approved body e.g. the National Standards Authority of Ireland (NSAI);

(b) Quality Assurance i.e. that the material is covered by a scheme which complies with the relevant recommendations of I.S./ISO 9000/EN 29000 Quality System Management and/or I.S. EN 45014 : General Criteria for Suppliers Declaration of Conformity;

(c) Tests and Calculations showing that the material is capable of performing the function for which it is intended. The ILAB Accreditation Scheme for Testing Laboratories offers a way of ensuring that tests are conducted in accordance with recognised criteria;

(d) Performance in use i.e. that the material can be shown by performance in use, such as in an existing building, to be capable of performing the function for which it is intended.

Note:

Section 11 of the Building Control Act, 1990 empowers an authorised officer of a building control authority to take samples of the materials used in the carrying out of any construction work to establish whether the requirements of building regulations are being complied with.

RESISTANCE TO MOISTURE

1.2 Where any material is likely to be adversely affected by condensation, by moisture from the ground or by airborne moisture such as rain or snow:

(a) the construction should prevent the passage of moisture to the material, or

(b) the material should be treated or otherwise protected from moisture.

RESISTANCE TO SUBSOIL

1.3 Any material in contact with the ground, or in the foundations, should be capable of resisting attacks by deleterious material in the subsoil such as sulphates (see also Technical Guidance Document C).

HIGH ALUMINA CEMENT

1.4 High alumina cement should not be used in structural work, including foundations.

Section 2

WORKMANSHIP

ADEQUACY OF WORKMANSHIP

2.1 A proper standard of workmanship and the appropriate use of any material is essential to achieving compliance with the requirements of the Regulations.

The conditions of use of particular materials and methods of achieving proper standards of workmanship are contained in technical specifications referred to in paragraph D2 of the requirement.

BS 8000 Workmanship on building sites (which gathers together guidance from other BSI Codes and Standards) gives guidance on basic workmanship for conventional types of building work.

If you are using other methods, you may be able to demonstrate that the workmanship satisfies the relevant requirement by

(a) quality assurance schemes i.e. the method is covered by a scheme which complies with the relevant recommendations of I.S. /ISO 9000/EN 29000 Quality System Management; or

(b) performance in use i.e. by showing, such as in an existing building, a previous use of the method of workmanship.

Standards and other references

IS/ISO 9000/EN 29000: 1989 Quality System Management.

IS EN 45014: 1989 General Criteria for Suppliers Declaration of Conformity.

BS 6954 : Part 1 : 1988 Tolerances for building.

BS 8000 Workmanship on building sites.