PD 6687-1:2010



BSI Standards Publication

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Background paper to the National Annexes to BS EN 1992-1 and BS EN 1992-3

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ISBN 978 0 580 58685 9

ICS 91.010.30; 91.080.40

The following BSI reference relates to the work on this standard: Committee reference B/525/2

Publication history

First published as PD 6687, March 2006 Second edition, as PD 6687-1, December 2010

Amendments issued since publication

Date

Text affected

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Foreword

Publishing information

This Published Document was published by BSI and came into effect on 31 December 2010. It was prepared by Subcommittee B/525/2, *Structural use of concrete*, under the authority of Technical Committee B/525, *Building and civil engineering*. A list of organizations represented on this committee can be obtained on request to its secretary.

Relationship with other publications

This Published Document is a background paper that gives non-contradictory complementary information for use in the UK with the Eurocodes for concrete, BS EN 1992-1-1:2004, BS EN 1992-1-2:2004, BS EN 1992-3 and their UK National Annexes.

NOTE BS EN 1992-1-1 contains general rules applicable to the design of all concrete structures. Therefore, B/525/10, which is responsible for Eurocodes for the design of bridges, was consulted in the drafting of this Published Document.

Presentational conventions

The provisions in this Published Document are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

The word "should" is used to express recommendations of this Published Document. The word "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the clause. The word "can" is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this Published Document. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

This Published Document is not to be regarded as a British Standard

Introduction

When there is a need for guidance on a subject that is not covered by the Eurocode, a country can choose to publish documents that contain non-contradictory complementary information that supports the Eurocode. This Published Document provides just such information and has been cited as a reference in the UK National Annexes to BS EN 1992-1-1:2004, BS EN 1992-1-2:2004, and BS EN 1992-3:2006.

PD 6687-2:2008 contains non-contradictory complementary information that supports BS EN 1992-2, parts of which are also relevant to the design of building structures. Designers might find this information useful.

1 Scope

This Published Document is a background paper that gives non-contradictory complementary information for use in the UK with BS EN 1992-1-1:2004, BS EN 1992-1-2:2004, BS EN 1992-3:2006, and their UK National Annexes.

This Published Document gives:

- a) background to the decisions made in the National Annexes for some of the Nationally Determined Parameters;
- commentary on some specific subclauses from BS EN 1992-1-1:2004, BS EN 1992-1-2:2004 and BS EN 1992-3:2006; and
- c) reference to the requirements of the building regulations in the UK [1,2] that are not covered in BS EN 1992-1-1:2004, BS EN 1992-1-2:2004, BS EN 1992-3:2006 and their UK National Annexes.

NOTE During the early stages of implementation of BS EN 1992 (all parts), all the related European standards and their UK National Annexes might not be available in their final form. Therefore, guidance on the standards that can be used in conjunction with BS EN 1992-1 (all parts) during the early stages of its implementation is given in Annex A.

2 BS EN 1992-1-1:2004, Eurocode 2: Design of concrete structures – Part 1-1: General rules and rules for buildings

2.1 Partial factors for materials [BS EN 1992-1-1:2004, 2.4.2.4]

The values recommended in BS EN 1992-1-1:2004, **2.4.2.4** have been adopted in NA to BS EN 1992-1-1:2004.

BS EN 1992-1-1:2004 gives a value of 1,15 for the partial factor for reinforcement γ_{sr} , which was included in the superseded British Standard for structural use of concrete, BS 8110-1:1997. This value represented a departure from the value of 1,05 that was used in the previous edition, BS 8110-1:1985. The reason for the change revolved around the characteristic strength, to which the partial factor is applied.