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Code of practice for grouted anchors

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Contents

Summary of pages
This document comprises a front cover, and inside front cover, pages i to vi, pages 1 to 137, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 August 2015. It was prepared under the authority of Technical Committee B/526, *Geotechnics*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

BS 8081:2015+A1:2017 supersedes BS 8081:2015, which is withdrawn.

Information about this document

Text introduced or altered by Amendment No. 1 is indicated in the text by the tags A1 A1. Minor editorial changes are not tagged. Amendment No. 1 introduces the following changes:

- Table 2 has been updated;
- a new Clause 11.3 has been inserted and the following subclauses renumbered; and
- Clause 11.3.5 has been deleted.

Relationship with other publications

BS 8081 gives non-contradictory, complementary information for use with BS EN 1997-1:2004+A1:2013 and its UK National Annexes, BS EN 1537:2013 and BS EN ISO 22477-5. At the time of publication, BS EN ISO 22477-5 is not published and until such time as it is published, the recommendations for the testing of grouted anchors given in BS 8081:2015 Annex G apply.[1]

Use of this document

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this British Standard is expected to be able to justify any course of action that deviates from its recommendations.

Presentational conventions

The provisions of this standard 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.

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

The auxiliary verb "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the Clause. The auxiliary verb "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 standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

1 BS EN ISO 22477-5 is expected to publish in June 2018 (although this date is subject to change). Please check the BSI Shop website at http://shop.bsigroup.com/ for further 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.

Compliance with a British Standard cannot confer immunity from legal obligations.

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1 Scope

1.1 This British Standard, as a code of practice, gives recommendations for the design, construction, stressing, testing, monitoring and maintenance of grouted anchors as defined in BS EN 1997-1:2004+A1:2013, BS EN 1537:2013 and BS EN ISO 22477-5.

1.2 Further general recommendations for corrosion hazards and protective measures, construction techniques and quality controls, stressing procedures, and the testing of grouted anchor components and complete installations are provided. Information supporting the practical implementation of these recommendations are provided in annexes to this code of practice.

1.3 Annex A provides examples of records that are developed during the execution and testing of grouted anchors.

1.4 Annex B provides information on the design of a fixed anchor length with respect to the bond or shear resistance at:

a) the ground/grout interface;

b) the grout/encapsulation interface;

c) the grout/tendon interface.

1.5 Annex C provides information on the pre-grouting and post-grouting of ground, where necessary.

1.6 Annex D provides information on the use of appropriate Young's modulus for the steel used in the design of the anchor tendon.

1.7 Annex E provides information on the types of corrosion that affect the steel elements of an anchor and the influence on the corrosion of the tendon of the ground and groundwater in which the anchor is installed.

1.8 Annex F provides information on the types of corrosion protection available for use in the fabrication and installation of the anchor.

1.9 Annex G provides recommendations on the testing of anchors at all stages of construction.

1.10 Annex H provides information on monitoring anchors in the long term, including appropriate acceptance criteria and remedial measures that can be applied in the event of non-compliance with the acceptance criteria.

1.11 Annex I draws attention to the statutory regulations affecting the safety, welfare and health of persons in the execution of anchor construction.

1.12 This code of practice is for the use of clients who commission the use of grouted anchors, ground engineering contractors, and geotechnical and structural designers.

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