BS 6349-1-4:2013

Maritime works –

Part 1-4: General – Code of practice for materials

Publishing and copyright information

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Amendments issued since publication

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Contents

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 62, an inside back cover and a back cover.

Foreword

Publishing information

This part of BS 6349 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 28 February 2013. It was prepared by Technical Committee CB/502, *Maritime works*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

Together with BS 6349-1-1, BS 6349-1-2 and BS 6349-1-3, this part of BS 6349 supersedes BS 6349-1:2000, which will be withdrawn when all four of the new subparts have been published.

Relationship with other publications

BS 6349 is published in the following parts:

- Part 1-1: *General – Code of practice for planning and design for operations*; [1)]
- Part 1-2: *General – Code of practice for assessment of actions*; [1)]
- Part 1-3: *General – Code of practice for geotechnical design*;
- Part 1-4: *General – Code of practice for materials*;
- Part 2: *Code of practice for the design of quay walls, jetties and dolphins*;
- Part 3: *Design of dry docks, locks, slipways and shipbuilding berths, shiplifts and dock and lock gates*;
- Part 4: *Code of practice for design of fendering and mooring systems*;
- Part 5: *Code of practice for dredging and land reclamation*;
- Part 6: *Design of inshore moorings and floating structures*;
- Part 7: *Guide to the design and construction of breakwaters*;
- Part 8: *Code of practice for the design of Ro-Ro ramps, linkspans and walkways*.

Information about this document

A full revision of BS 6349-1:2000 has been undertaken and the principal change is to split the document into four smaller parts:

- BS 6349-1-1: *Code of practice for planning and design for operations*;
- BS 6349-1-2: *Code of practice for assessment of actions*;
- BS 6349-1-3: *Code of practice for geotechnical design*;
- BS 6349-1-4: *Code of practice for materials*.

The principal change in respect of the materials content is that the document has been edited to be compatible with relevant Eurocodes. The concrete clause has been significantly revised to reflect current industry practice and to bring the recommendations in line with comparable British and European standards.

Subclause **4.3.3.3** is adapted from Concrete Society publication CS 163, *Guide to the design of concrete structures in the Arabian Peninsula* [1], with the kind permission of the Concrete Society.

[1)] In preparation.

Use of this document

As a code of practice, this part of BS 6349 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 in 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.

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.

Introduction

The materials covered by this part of BS 6349 include the basic materials used in civil engineering construction, and composite or manufactured materials where these are normally considered to be materials in their own right.

Some elements of maritime construction, such as pavements and piling, which can utilize a variety of materials, are also included, because the special requirements of the maritime situation have a bearing on the choice of materials that are the most appropriate.

The materials covered in this part of BS 6349 are as follows:

a) concrete;

b) structural steel and other metals;

c) piles;

d) rails;

e) pipes;

f) timber;

g) stone for armouring or protection works;

h) pavements;

i) bituminous materials.

Protective measures and treatments cover a wide range of methods that can be applied in the construction, operation and maintenance of maritime structures. Those covered in this part of BS 6349 include the following:

1) coating systems;

2) concrete protection;

3) sheathing;

4) steel wear plates;

5) wrappings;

6) cathodic protection.

1 Scope

This part of BS 6349 gives recommendations for the materials used in the design and construction of maritime environment structures, and includes specific provisions for use in a seawater environment.

NOTE Materials used in these conditions are often subject to more onerous environmental conditions than inshore structures, and thus special attention is given to the use of durable materials to provide the specified performance and design life.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Standards publications

ASTM B127, *Standard specification for nickel-copper alloy (UNS N04400) plate, sheet, and strip*