

PBD 6 :
Part 1 : 1993



PIAWAI BRUNEI DARUSSALAM
BRUNEI DARUSSALAM STANDARD

Concrete

Part 1. Guide to specifying concrete

MINISTRY OF DEVELOPMENT
NEGARA BRUNEI DARUSSALAM

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Part 1. Guide to specifying concrete

PIAWAI BRUNEI DARUSSALAM

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First edition

Attention is drawn to the fact that this Brunei Darussalam Standard does not confer any immunity from legal obligations in any contract for compliance to the Standard.

The Brunei Darussalam Standards are subject to periodical review according to the current needs of the local industries to keep abreast of progress in the industries concerned. Suggestions of amendments will be recorded and in due course brought to the notice of the committees concerned.

Amendments issued since publication

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FOREWORD

This Brunei Darussalam Standard was prepared by the Technical Committee on Concrete under the authority of the Standards Committee, Ministry of Development.

This standard was published with all specifications reviewed in accordance to the current needs of the local building industry.

This standard covers the methods for specifying and producing concrete as a construction material up to the point of delivery into the construction. The standard is in four Parts:

- Part 1. Guide to specifying concrete
- Part 2. Methods for specifying concrete mixes
- Part 3. Specification for the procedures to be used in producing and transporting concrete
- Part 4. Specification for the procedures to be used in sampling, testing and assessing compliance of concrete

Part 1 provides guidance to the specifier and purchaser of concrete on the selection of requirements for materials and concrete mixes. Part 2 provides a choice of methods by which the purchaser can convey the selected requirements to the producer. Part 3 specifies for the producer the procedures to be used in producing and transporting the concrete. Part 4 specifies the procedures to be used by the purchaser in sampling, testing and assessing concrete for compliance.

This standard provides methods for specifying concrete mixed on site or in a precast concrete factory and for the purchase and supply of ready-mixed concrete. It takes account of the distinct and different responsibilities of the purchaser and the producer. There are a number of instances in which the purchaser has to select from the various options given in this standard in order to specify the concrete required. The purchaser is responsible for passing on to the producer the requirements of the specifying body, e.g. the engineer's or architect's specification, together with any additional requirements. Throughout this

standard the terms 'specify' and 'specification' are used in relation to both sets of requirements. There may be occasions where it is advantageous for economic or technical reasons to propose changes to the specification. In such cases the producer and purchaser should agree on the proposed amendments for approval and sanction by the specifying body.

Precautions need to be taken when working with cement and wet concrete and attention is drawn to these in PBD 6 : Parts 3 and 4.

This standard covers concrete produced by normal methods, but it does not apply to precast concrete products. Many of the requirements of the standard, e.g. the use of materials and the control of production, apply equally to precast concrete and to in situ concrete. However, some of its requirements concerning the responsibilities of the purchaser and producer may not apply in the case of precast concrete.

Acknowledgement is made for the use of the British Standard BS 5328 : Part 1 : 1990 : "Guide to specifying concrete" on which this standard is based.

COMMITTEE REPRESENTATION

The Technical Committee on Concrete was entrusted by the Ministry of Development for the preparation of this Brunei Darussalam Standard. The members of the Technical Committee are as follows:-

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Guide

0 Introduction

This Part of PBD 6 gives advice on the selection of the quality of concrete suitable for many general purposes.

This Part of PBD 6 is primarily a guide for the specifier in choosing the appropriate materials and mix. It gives the range of constituent materials that can be used. It describes the properties of fresh and hardened concrete, with considerable emphasis on durability. Distinction is made between structural and non-structural concrete and between unreinforced, reinforced and prestressed concrete. Also included is guidance on sampling for strength compliance testing and action to be taken in the event of non-compliance.

Account is taken of standard specifications relating to ground granulated blastfurnace slag or pulverized-fuel ash used in composite cements or in equivalent combinations.

Purchasers ordering in accordance with this standard are advised to specify quality assurance requirements for materials or for concrete in their purchasing contracts to assure themselves that products specified in accordance with PBD 6 consistently achieve the required level of quality.

1 Scope

This Part of PBD 6 gives guidance on the selection of materials for concrete and on the mixes to be specified to produce concrete having the required properties in the fresh and hardened state. It also gives guidance on sampling for strength compliance testing and action to be taken in the event of non-compliance.

NOTE. The titles of the publications referred to in this standard are listed on page 38.

2 Definitions

For the purposes of this Part of PBD 6 the definitions given in BS 6100 apply, together with the following.