



NEGARA BRUNEI DARUSSALAM

**BRUNEI DARUSSALAM STANDARD  
PIAWAI BRUNEI DARUSSALAM**

**PBD 11: 2012**

**Second edition 2012**

**TIMBER**

**Sawn Timber Foundation Piles**

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NEGARA BRUNEI DARUSSALAM**

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**Authority for Building Control and Construction Industry (ABCI)**

**Ministry of Development**

**Bandar Seri Begawan BB 3510**

**Negara Brunei Darussalam**

# **Timber**

## **Sawn Timber Foundation Piles**

**PIAWAI BRUNEI DARUSSALAM**

**PBD 11 : 2012**

**Second 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

Amd No.	Date of issue	Text affected
1	2012	Appendix IV added to 'Contents'.
1	2012	Cross reference paragraph added to 'Introduction'.
1	2012	Article 1.0 'Scope' amended as full sawn square timber foundation piles.
1	2012	Article 3.0 Timber sizes amended with permissible deviation of $\pm 5$ per centum (%).
1	2012	Article 4.0 Timber species re-drafted. Previous articles 4.1 and 4.2 deleted.

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## **FOREWORD**

This Brunei Darussalam Standard was prepared by the Technical Committee on Timber 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 specifications for sawn timber foundation piles in Brunei Darussalam. With the issue of this standard, it is hoped that potential users will be able to specify accurately their needs when ordering treated timber products. At the same time, these specifications will form the basis for quality assessment and arbitration for such products in Brunei Darussalam.

In the formulation of these specifications, local timber species and local utilisation practices have been taken into special consideration. However, it cannot be claimed that these specifications are exhaustive.

Acknowledgement is made to the Forestry Department, Ministry of Industry & Primary Resources, for drafting the first edition of this standard.

**COMMITTEE REPRESENTATION**

The Technical Committee on Timber 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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## 0 Introduction

The use of square sawn timber for foundation piles is fast gaining acceptance among the construction sector in Brunei Darussalam. Square sawn timber piles are replacing the more traditional Bakau poles, hollow steel pipes and concrete piles which have been the mainstay of foundation material used in the country.

In order to use timber as a foundation pile, care must be taken at every stage, starting from the manufacturing phase to the site handling stage until the final piling stage. All along these stages, sufficient standards must be achieved in order that timber will give its best performance. Due to the critical role that foundation piles play in a building, extra stringent standards must be set and enforced. This standard for the use of timber as foundation piles has been developed with this view in mind.

Much of the specifications contained in this standard has been covered in PBD 8 : 1993 – Specifications for treated timber products. However, it is felt that timber foundation piles are important enough to warrant its own standard.

In preparing this standard, reference has been made of the following documents:

1. Nomenclature of common timbers in Brunei Darussalam. *Piawai Brunei Darussalam PBD 7 : 1993*
2. Specifications for treated timber products. *Piawai Brunei Darussalam PBD 8 : 1993*
3. Specification for sawn – timber foundation piles. *Malaysian standard MS 822 : 1983*
4. Properties and uses of the common timbers of Brunei Darussalam. *Timber Information Series No. 2, Forestry Department, Brunei Darussalam.*
5. The use of timber in foundation piling. *Timber Information Series No. 4, Forestry Department, Brunei Darussalam.*

AMDT:

Cross reference shall be made to GD 11 – Timber : Essential Data for Designers issued in 1997.

## **Standard for Sawn Timber Foundation Piles**

### **1.0 Scope**

This standard applies to full sawn square timber foundation piles used on land and in fresh water for building and civil engineering purposes. It specifies the species, quality of timber, the prefabrication and conditioning of the piles and the preservative treatment to be used.

### **2.0 Definitions**

For the purpose of this standard, the nomenclature of timbers is in accordance with PBD 7 : 1993, 'Nomenclature of Common Timbers in Brunei Darussalam'.

### **3.0 Timber Sizes**

Timber graded under this standard must be used in its specified size, the only remanufacture allowed being cross-cutting to length. Timber shall be supplied in common sizes of :-

100 mm (4 in) square

125 mm (5 in) square

150 mm (6 in) square

175 mm (7 in) square

with a permissible deviation of  $\pm 5$  per centum (%).