

**PBD 5 : 1992**



**PIAWAI BRUNEI DARUSSALAM**  
**BRUNEI DARUSSALAM STANDARD**

Specification for

**Cold reduced steel wire for the  
reinforcement of concrete**

MINISTRY OF DEVELOPMENT  
NEGARA BRUNEI DARUSSALAM

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**Construction Planning and Research Unit  
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Negara Brunei Darussalam.**

Specification for

# **Cold reduced steel wire for the reinforcement of concrete**

PIAWAI BRUNEI DARUSSALAM

**PBD 5 : 1992**

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

| Amd No. | Date of issue | Text affected |
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## FOREWORD

This Brunei Darussalam Standard having been adopted from the British Standard BS 4482 : 1985, and prepared under the direction of the Technical Committee on Steel for the Reinforcement of Concrete was endorsed by the Ministry of Development and was first published in 1992.

This standard was published with all specifications reviewed in accordance to the current needs of the local building industry and the British Standard BS 4482 : 1985.

In preparing this standard, references are made to the following :-

- |    |                    |  |
|----|--------------------|--|
| 1. | PBD 3 : 1992       | Specification for carbon steel bars for the reinforcement of concrete.         |
| 2. | PBD 2 : 1992       | Specification for steel fabric for the reinforcement of concrete.              |
| 3. | BS 4545 : 1992     | Methods for mechanical testing of steel wire.                                  |
| 4. | BS 5135 : 1984     | Specification for arc welding of carbon and carbon manganese steel             |
| 5. | BS 5750 : 1987     | Quality Systems<br>Part 2 : Specification for production and installation.     |
| 5. | Handbook 19 : 1970 | Methods for the sampling and analysis of iron, steel and other ferrous metals. |
| 6. | BS 4545 : 1970     | Methods for mechanical testing of steel wire.                                  |

Acknowledgement is made for the use of the British Standard BS 4482 : 1985 "Cold reduced steel wire for the reinforcement of concrete" on which this standard is based. Any reference to "British Standard" and "BS no." are replaced with "Brunei Darussalam Standard" (Piawai Brunei Darussalam) and "PBD no." as appropriate.

## COMMITTEE REPRESENTATION

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

|                               |  |
|-------------------------------|--|
| Awang Michael Ng              | Ministry of Development                  |
| Awang Yusop Haji Ibrahim      | Ministry of Development                  |
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| Awang Nimal S. Chandrasena    | Housing Development Department           |
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| Dayang Masni Haji Mohsin      | Ministry of Industry & Primary Resources |
| Dr. Kevin Dean                | University of Brunei Darussalam          |

## Specification

### 1 Scope

This Brunei Darussalam Standard specifies requirements for cold reduced plain and deformed steel wire used for the reinforcement of concrete and the manufacture of steel fabric in accordance with PBD 2 : 1991.

Wire that may be used for the prestressing of concrete and wire used for ties, lifting and other general engineering or industrial purposes is not included in this standard.

The nominal wire size range specified in this standard is 4 mm to 12 mm.

NOTE. The titles of the publications referred to in this standard are listed on the inside back cover.

### 2 Definitions

For the purposes of this Brunei Darussalam Standard the following definitions apply.

**2.1 batch.** Any quantity of finished wire of one type and size, produced by one manufacturer or supplier, presented for examination at any one time.

**2.2 bundle.** A number of lengths properly bound together.

**2.3 coil.** One continuous length of wire wound into spiral rings.

**2.4 deformed wire.** A wire with surface characteristics designed to increase its bond with concrete.

**2.5 length.** A piece of nominally straight wire cut to a specified length.

**2.6 nominal size.** The diameter of a circle with an area equal to the effective cross-sectional area of the wire.

**2.7 nominal density.** The value of 0.00785 kg/mm<sup>2</sup> per metre run taken for the purpose of converting a length and cross-sectional area of a wire to its mass.