

INTERNATIONAL STANDARD

ISO
6935-1

Second edition
2007-01-15

Steel for the reinforcement of concrete — Part 1: Plain bars

*Aciers pour l'armature du béton —
Partie 1: Barres lisses*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
1 Scope	1
2 Normative references	1
3 Symbols	2
4 Terms and definitions.....	2
5 Dimensions, masses per unit length and permissible deviations.....	3
6 Chemical composition.....	4
7 Mechanical properties	5
7.1 Tensile properties	5
7.2 Bending properties	5
8 Testing	6
8.1 Tensile test	6
8.2 Bend test.....	6
8.3 Chemical analysis.....	6
9 Designation	6
10 Marking	7
11 Evaluation of conformity.....	7
11.1 General.....	7
11.2 Certification scheme.....	7
11.3 Acceptance testing of a specific delivery	7
11.3.1 General.....	7
11.3.2 Verification of characteristic values	7
11.3.3 Verification of specified minimum/maximum values	9
11.3.4 Test report	9
Bibliography	10

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 6935-1 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 16, *Steels for the reinforcement and prestressing of concrete*.

This second edition cancels and replaces the first edition (ISO 6935-1:1991), which has been technically revised.

ISO 6935 consists of the following parts, under the general title *Steel for the reinforcement of concrete*:

- *Part 1: Plain bars*
- *Part 2: Ribbed bars*
- *Part 3: Welded fabric*

Steel for the reinforcement of concrete —

Part 1: Plain bars

1 Scope

This part of ISO 6935 specifies technical requirements for plain bars to be used as reinforcement in concrete.

This part of ISO 6935 covers nine steel grades not intended for welding which are B240A-P, B240B-P, B240C-P, B240D-P, B300A-P, B300B-P, B300C-P, B300D-P and B420D-P, and one steel grade intended for welding which is B420DWP. The production process is at the discretion of the manufacturer. It also applies to plain bars supplied in coil form. The requirements of this part of ISO 6935 apply to straightened product. The steel grades are designated with steel names allocated in accordance with ISO/TS 4949.

NOTE The first “B” stands for steel for reinforcing concrete. The next 3 digits represent the specified characteristic value of upper yield strength. The fifth letter stands for ductility class (4.4). The next symbol relates to welding; “-” means not intended for welding and “W” means intended for welding. The last “P” stands for plain bar.

This part of ISO 6935 covers products delivered in straight lengths.

Plain bars produced from finished products, such as plates and railway rails, are excluded.

2 Normative references

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

ISO 404, *Steel and steel products — General technical delivery requirements*

ISO/TS 4949, *Steel names based on letter symbols*

ISO/TR 9769, *Steel and iron — Review of available methods of analysis*

ISO 10144, *Certification scheme for steel bars and wires for the reinforcement of concrete structures*

ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition*

ISO 15630-1, *Steel for the reinforcement of concrete and prestressing of concrete — Test methods — Part 1: Reinforcing bars, wire rod and wire*