

Steel rod, bars and wire for cold heading and cold extrusion —

Part 1: General technical delivery conditions

The European Standard EN 10263-1:2001 has the status of a
British Standard

ICS 77.140.60; 77.140.65

National foreword

This British Standard is the official English language version of EN 10263-1:2001, including Corrigendum August 2002. Together with BS EN 10263-2:2001, BS EN 10263-3:2001 and BS EN 10263-4:2001 it supersedes BS 3111-1:1987, which is withdrawn; and together with BS EN 10263-5:2001 it supersedes BS 3111-2:1979, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/71, Steel rods for wire drawing, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 August 2001

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English version

Steel rod, bars and wire for cold heading and cold extrusion — Part 1: General technical delivery conditions

Barres, fil machine et fils en acier pour déformation à froid
et extrusion à froid — Partie 1: Conditions techniques
générales de livraison

Walzdraht, Stäbe und Draht aus Kaltstauch- und
Kaltfließpreßstählen — Teil 1: Allgemeine technische
Lieferbedingungen

This European Standard was approved by CEN on 19 April 2001.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 15, Wire-rod - Qualities, dimensions, tolerances and specific tests, the Secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2001, and conflicting national standards shall be withdrawn at the latest by December 2001.

This European Standard EN 10263 is subdivided as follows:

- *Part 1: General technical delivery conditions;*
- *Part 2: Technical delivery conditions for steels not intended for heat treatment after cold working;*
- *Part 3: Technical delivery conditions for case hardening steels;*
- *Part 4: Technical delivery conditions for steels for quenching and tempering;*
- *Part 5: Technical delivery conditions for stainless steels.*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

1.1 This part of EN 10263 specifies the general technical delivery conditions for round rod, round bars and wire for cold heading and cold extrusion made of:

- a) non alloy steels not intended for heat treatment after cold working, as specified in EN 10263-2;
- b) non alloy and alloy steels for case hardening as specified in EN 10263-3;
- c) non alloy and alloy steels for quenching and tempering as specified in EN 10263-4;
- d) stainless steels as specified in EN 10263-5.

1.2 Parts 2, 3 and 4 of this EN 10263 cover products having a diameter up to and including 100 mm.

Part 5 covers products having a diameter up to and including:

- 25 mm for ferritic and austenitic-ferritic steels;
- 50 mm for austenitic steels;
- 100 mm for martensitic steels.

1.3 In special cases supplementary requirements or deviations with respect to this European Standard may be agreed between the purchaser and the supplier at the time of enquiry and order (see annex B).

1.4 The general technical delivery conditions in EN 10021 also apply to products supplied in accordance with this European Standard

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 10002-1	<i>Metallic materials — Tensile testing — Part 1: Method of test (at ambient temperature).</i>
EN 10020	<i>Definitions and classification of grades of steel.</i>
EN 10021	<i>General technical delivery requirements for steel and iron products.</i>
EN 10027-1	<i>Designation system for steels — Part 1: Steel names, principal symbols.</i>
EN 10027-2	<i>Designation system for steels — Part 2: Numerical system.</i>
EN 10052	<i>Vocabulary of heat treatment terms for ferrous products.</i>
EN 10079	<i>Definition of steel products.</i>
EN 10088-1	<i>Stainless steels — Part 1: List of stainless steels.</i>
EN ISO 6508-1	<i>Metallic material — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T).</i>
EN 10204	<i>Metallic products — Types of inspection documents.</i>
EN 10221	<i>Surface quality classes for hot-rolled bars and rods — Technical delivery conditions.</i>
ENV 10247	<i>Micrographic examination of the inclusion content of steels using standard pictures.</i>

EN ISO 377	<i>Steel and steel products — Location and preparation of samples and test pieces for mechanical testing.</i>
EN ISO 642	<i>Steel — Hardenability test by end quenching (Jominy test).</i>
EN ISO 3651-2	<i>Determination of resistance to intergranular corrosion of stainless steel — Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels — Corrosion test in media containing sulfuric acid.</i>
EN ISO 9002	<i>Quality systems — Model for quality assurance in production, installation and servicing.</i>
CR 10260	<i>Designation systems for steel: Additional symbols.</i>
CR 10261	<i>Iron and steel — Review of available methods of chemical analysis.</i>
prEN 10060 ¹⁾	<i>Hot rolled round steel bars. Dimensions and tolerances on shape and dimensions.</i>
prEN ISO 14284 ¹⁾	<i>Steel and iron — Sampling and preparation of samples for the determination of chemical composition.</i>
prEN 10168 ¹⁾	<i>Iron and steel products — Inspection documents — List of information and description.</i>
EURONORM 103 ²⁾	<i>Micrographic determination of austenitic or ferritic grain size of steel.</i>
EURONORM 104 ²⁾	<i>Determination of depth of decarburization of non alloy and low alloy mechanical steel.</i>

3 Terms and definitions

For the purpose of this standard the definitions in EN 10020, EN 10021, EN 10052, EN 10079, EN ISO 377, and prEN ISO 14284 apply.

4 Classification and designation

4.1 Classification

The classification of the steel grades covered by this European Standard according to EN 10020 is indicated in clause 4.1 of Parts 2, 3, 4 and 5 of this standard for the corresponding steel grades.

4.2 Designation

4.2.1 Steel names

For the steel grades covered by this European Standard, the steel names as given in the relevant tables of Parts 2,3,4 and 5 of this standard are allocated in accordance with EN 10027-1 and CR 10260

4.2.2 Steel numbers

For the steel grades covered by this European Standard, the steel numbers as given in the relevant tables of Parts 2,3,4 and 5 of this standard are allocated in accordance with EN 10027-2.

¹⁾ In preparation, until this document is published as European Standard, the corresponding national standard should be agreed at the time of enquiry and order.

²⁾ Until this EURONORM is transformed into a European Standard, this EURONORM or a corresponding national standard may be applied, depending on the agreement at the time of ordering (see annex A).

5 Information to be supplied by the purchaser

5.1 Mandatory information

The following information shall be supplied by the purchaser at the time of enquiry and order, to enable the supplier to comply satisfactorily with the requirements of this European Standard:

- a) quantity to be delivered;
- b) product denomination (rod or bar or wire);
- c) the relevant European Standard or EURONORM specifying the dimensions (see clause 8);
- d) the nominal diameter of the products;
- e) length for bars and dimensions and mass for the coils;
- f) reference to this European Standard including the number of the relevant part(s);
- g) steel name or steel number (see 4.2);
- h) indication of the delivery condition (see 7.4.1);
- i) surface quality (see 7.10);
- j) where applicable, indication of the symbol for hardenability requirements (see 7.7);
- k) type of inspection and inspection document in accordance with EN 10021 and EN 10204 respectively (see 9.1).

5.2 Non-mandatory information

Supplementary requirements among the following may be specified by the purchaser at the time of enquiry and order. If a supplementary requirement is not specified, all decisions regarding it shall be left to the manufacturer's discretion:

- a) where applicable, indication of any additional requirement, by reference to the corresponding clause number of annex B;
- b) verification of hardenability by calculation (see 7.7);
- c) special surface treatment (see 7.4.3);
- d) packaging (see 12);
- e) protection during transport and handling (see 13).

5.3 Example of an order

100 t bars in accordance with Part 4 of this European Standard, with a diameter of 50 mm and length of 6 000 mm in accordance with prEN 10060, made of steel grade 32CrB4 (1.7076) spheroidized and cold drawn, with a 3.1.B inspection certificate in accordance with EN 10204.

100 t – Bars – prEN 10060 - 50 x 6000 – EN 10263-4 - 32CrB4+AC+C - EN 10204 3.1.B

6 Production process

Unless the production process is agreed at the time of ordering, it is left to the discretion of the manufacturer.

7 Requirements

7.1 General

The manufacturer is responsible, using the means he thinks fit, for controlling his production from the point of view of the various quality criteria specified. In view of the fact that it is difficult to inspect coils of rod or wire apart from at the ends of the coils delivered, it cannot be proved that no value outside the specified limits is to be found in the coil of rod or wire as a whole. The means and procedures adopted by the manufacturer for controlling his production shall be in conformity with his quality assurance scheme (see 7.2).