

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

BS EN 10088-3:2014



BSI Standards Publication

Stainless steels

Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes

bsi.

...making excellence a habit.™

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

This British Standard is the UK implementation of EN 10088-3:2014. It supersedes BS EN 10088-3:2005 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/105, Steels for Heat Treatment, Alloy Steels, Free-Cutting Steels and Stainless Steels.

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

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

© The British Standards Institution 2014.
Published by BSI Standards Limited 2014

ISBN 978 0 580 76854 5
ICS 77.140.20; 77.140.50; 77.140.65

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2014.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

EUROPÄISCHE NORM

October 2014

ICS 77.140.20; 77.140.50; 77.140.65

Supersedes EN 10088-3:2005

English Version

Stainless steels - Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes

Aciers inoxydables - Partie 3: Conditions techniques de livraison pour les demi-produits, barres, fils tréfilés, profils et produits transformés à froid en acier résistant à la corrosion pour usage général

Nichtrostende Stähle - Teil 3: Technische Lieferbedingungen für Halbzeug, Stäbe, Walzdraht, gezogenen Draht, Profile und Blankstahlerzeugnisse aus korrosionsbeständigen Stählen für allgemeine Verwendung

This European Standard was approved by CEN on 9 August 2014.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

Contents	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Designation and ordering	6
4.1 Designation of steel grades	6
4.2 Designation to be used on ordering	6
5 Classification of grades	7
6 Requirements	8
6.1 Steelmaking process	8
6.2 Delivery condition	8
6.3 Chemical composition	8
6.4 Chemical corrosion properties.....	8
6.5 Mechanical properties	8
6.6 Surface quality	9
6.7 Internal soundness	9
6.8 Formability at room temperature	9
6.9 Dimensions and tolerances on dimensions and shape	9
6.10 Calculation of mass and tolerances on mass.....	9
7 Inspection and testing.....	10
7.1 General.....	10
7.2 Agreement on tests and inspection documents	10
7.3 Specific inspection and testing.....	10
7.3.1 Extent of testing.....	10
7.3.2 Selection and preparation of samples.....	10
7.4 Test methods.....	11
7.5 Retests	11
8 Marking	11
Annex A (informative) Guidelines for further treatment (including heat treatment) in fabrication.....	64
Annex B (informative) Availability of corrosion resistant steel wire in the cold work-hardened condition	71
Annex C (informative) Applicable dimensional standards.....	74
Bibliography	75

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

Foreword

This document (EN 10088-3:2014) has been prepared by Technical Committee ECISS/TC 105 "Steels for heat treatment, alloy steels, free-cutting steels and stainless steels", the secretariat of which is held by DIN.

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 April 2015 and conflicting national standards shall be withdrawn at the latest by April 2015.

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

This document supersedes EN 10088-3:2005.

This standard mainly differs from the 2005 edition as follows:

- a) addition of austenitic grades 1.4615, 1.4646, 1.4020, 1.4378, addition of austenitic-ferritic (duplex) grades 1.4162, 1.4662, 1.4482, 1.4062, 1.4669, addition of ferritic grades 1.4611, 1.4621, 1.4613 addition of martensitic grade 1.4150, addition of precipitation hardening grade 1.4612;
- b) chemical composition was changed for following grades: austenitic grade 1.4597, austenitic-ferritic grade 1.4362;
- c) standard inspection document is now a test report 2.2 according to EN 10204;
- d) mechanical values changed for austenitic grade 1.4372, for martensitic grades 1.4313, 1.4028, 1.4122, 1.4057 and for precipitation hardening grade 1.4606;
- e) mechanical values for bright bars have been changed for austenitic grades 1.4305, 1.4529, 1.4378, 1.4020, for austenitic-ferritic grades 1.4062, 1.4162, 1.4482, 1.4662, 1.4507 and for martensitic grades 1.4028, 1.4122, 1.4057.

EN 10088, under the general title *Stainless steels*, consists of the following parts:

- *Part 1: List of stainless steels* (including a table of European Standards, in which these stainless steels are further specified, see Annex B);
- *Part 2: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes*;
- *Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes* [the present document];
- *Part 4: Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for construction purposes*;
- *Part 5: Technical delivery conditions for bars, rods, wire, sections and bright products of corrosion resisting steels for construction purposes*.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

Introduction

The European Organization for Standardization (CEN) draws attention to the fact that it is claimed that compliance with this document may involve the use of patents applied to 10 steel grades.

CEN takes no position concerning the evidence, validity and scope of these patent rights.

The holder of these patent rights has ensured CEN that they are willing to negotiate licenses, under reasonable and non-discriminatory terms and conditions, with applicants throughout the world. In this respect, the statements of the holders of these patent rights are registered with CEN. Information may be obtained from:

Grade 1.4658:
Sandvik AB
SE-811 81 Sandviken, Sweden

Grade: 1.4162, 1.4662
Outokumpu Stainless AB
SE-77480 Avesta, Sweden

Grade 1.4062, 1.4615, 1.4669:
Ugitech
F-73403 Ugine Cedex, France,

Grade 1.4062, 1.4669
Industeel
F-71200 Creusot, 56 Rue Clemenceau, France

Grade 1.4646, 1.4611, 1.4613
Acciai Speciali Terni
I-05100 Terni, Italy

This is a preview of "BS EN 10088-3:2014". [Click here to purchase the full version from the ANSI store.](#)

1 Scope

This European Standard specifies the technical delivery conditions for semi-finished products, hot or cold formed bars, rods, wire, sections and bright products of standard grades and special grades of corrosion resisting stainless steels for general purposes.

NOTE General purposes include the use of stainless steels in contact with foodstuffs.

The general technical delivery conditions specified in EN 10021 apply in addition to the specifications of this European Standard, unless otherwise specified in this European Standard.

This European Standard does not apply to components manufactured by further processing of the product forms listed above with quality characteristics altered as a result of such further processing.

2 Normative references

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

EN 10021, *General technical delivery conditions for steel products*

EN 10027-1, *Designation systems for steels — Part 1: Steel names*

EN 10027-2, *Designation systems for steels — Part 2: Numerical system*

EN 10052:1993, *Vocabulary of heat treatment terms for ferrous products*

EN 10079:2007, *Definition of steel products*

EN 10088-1:2014, *Stainless steels — Part 1: List of stainless steels*

EN 10163-3, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 3: Sections*

EN 10168, *Steel products — Inspection documents — List of information and description*

EN 10204, *Metallic products — Types of inspection documents*

EN 10221, *Surface quality classes for hot-rolled bars and rods — Technical delivery conditions*

EN 10306, *Iron and steel — Ultrasonic testing of H beams with parallel flanges and IPE beams*

EN 10308, *Non destructive testing — Ultrasonic testing of steel bars*

EN ISO 148-1, *Metallic materials — Charpy pendulum impact test — Part 1: Test method (ISO 148-1)*

EN ISO 286-1, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 1: Basis of tolerances, deviations and fits (ISO 286-1)*

EN ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing (ISO 377)*

EN ISO 3651-2, *Determination of resistance to intergranular corrosion of stainless steels — Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels — Corrosion test in media containing sulfuric acid (ISO 3651-2)*