### **DIN EN 10095**



ICS 77.120.40; 77.140.20

Supersedes DIN EN 10095:1999-05

## Heat resisting steels and nickel alloys; English version EN 10095:1999, English translation of DIN EN 10095:2018-12

Hitzebeständige Stähle und Nickellegierungen; Englische Fassung EN 10095:1999, Englische Übersetzung von DIN EN 10095:2018-12

Aciers et alliages de nickel réfractaires; Version anglaise EN 10095:1999, Traduction anglaise de DIN EN 10095:2018-12

Document comprises 36 pages

.din.de

euth.de

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.

© DIN Deutsches Institut für Normung e. V. (German Institute for Standardization) is the owner of all exclusive rights for Germany – all rights of exploitation, irrespective of the form and procedure – are reserved for DIN e. V. F Beuth Verlag GmbH, 10 (DIN-Normen).

11.18

A comma is used as the decimal marker.

## National foreword

This document (EN 10095:1999) has been prepared by Technical Committee ECISS/TC 23, Subcommittee SC 1 "Stainless steels" (Secretariat: DIN, Germany) of the European Committee for Iron and Steel Standardization (ECISS).

The responsible German body involved in its preparation was *DIN-Normenausschuss Eisen und Stahl* (DIN Standards Committee Iron and Steel), Subcommittee NA 021-00-06-01 UA "Stainless steels" of Working Committee NA 021-00-06 AA "Stainless, heat- and creep-resisting steels".

This first edition of a European Standard contains the technical delivery conditions for strip, sheet, rod, bars, sections and semi-finished products made from heat resisting steels and nickel alloys. So far there has been no corresponding DIN Standard in Germany, SEW 470 has rather been used directly.

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

### Amendments

Compared with DIN EN 10095:1999-05, the following corrections have been made:

- a) in the Scope, in subclause 1.1, the term "wrought" has been deleted;
- b) in Table 1, last column ("Others"), the marks "3/4" have been deleted in the indication of steel X3CrAlTi18-2 (1.4736);
- c) in Table 2, column Si, the entry for the short name "X15CrNiSi20-12" (1.4828) has been changed to: "1,50 to 2,50" (instead of "1,50 to 2,00");
- d) in Table 5, column "Permissible deviations from the specified composition ...", line "Al", "± 0,05" has been replaced by "+ 0,05";
- e) in Table 6, column "Name", "X12CrNi23-12" has been replaced by "X12CrNi23-13" under line "X12CrNi23-12";
- f) in Table 6, column "Tensile strength", line "NiCr15Fe", "500 to 850" has been replaced by "550 to 850";
- g) in Clause B.3, third paragraph, "600 °C to 900 °C" has been replaced by "600 °C to 950 °C";
- h) in Table B.4, column "Name", line "X10NiCrAlTi32-21", "X10NiCrAl+Ti32-21" has been replaced by "X10NiCrAlTi32-21";
- i) in Table B.5, column "Name", line "X10CrAlSi7", "X10CrAlSi7" has been replaced by "X8CrAlSi7";
- j) in the table in Annex D, column "Steels from prEN 10028-7, Name", line "X6CrNiTi8-10", "X6CrNiTi8-10" has been replaced by "X6CrNiTi18-10",
- k) further adaptations to the reference version have been made.

#### **Previous editions**

DIN EN 10095: 1999-05

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

## EN 10095

March 1999

ICS 77.120.40; 77.140.20

English version

### Heat resisting steels and nickel alloys

Aciers et alliages de nickel réfractaires

Hitzebeständige Stähle und Nickellegierungen

This European Standard was approved by CEN on 1 March 1999.

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 Central Secretariat 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 Central Secretariat 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 COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

© 1999 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 10095:1999 E

This is a preview. Click here to purchase the full publication.

### DIN EN 10095:2018-12 EN 10095:1999 (E)

### Contents

			page
Foreword 1 Scope		3 4	
2	Normative reference	S	4
3	Definitions	-	6
4	Classification and de	signation	6
4.1	Classification		6
4.2	Designation		6
5	Information to be sup	oplied by the purchaser	7
5.1	Mandatory information		7
5.2	Options		8
6	Manufacturing proce	SS	8
6.1	General		8
6.2	Delivery condition		8
7	Requirements		8
7.1	General		8
7.2	Chemical composition		8
7.3	Mechanical properties		9
7.4	Surface quality		9
7.5	Dimensions and tole	rances on dimensions	9
7.6	Calculation of mass	and tolerances on mass	9
8	Inspection and testin	g	10
8.1	General		10
8.2	Types and contents of inspection documents		10
8.3	Specific inspection and testing		11
8.4	Test methods		11
8.5	Retest		12
9	Marking		12
Anne	ex A (informative):	Applicable dimensional standards	25

Annex B (informative):	Technical information on heat resisting steels and nickel alloys	26
Annex C (informative):	Bibliography	33
Annex D (informative):	Grades from EN 10088-1 and prEN 10028-7 used as heat resisting steels	34