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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 14996-2025

Replacing GB/T 14996-2010

Wrought superalloy - Cold-rolled sheets and strips

变形高温合金 冷轧板材和带材

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document supersedes GB/T 14996-2010 "High Temperature Alloy Cold Rolled Sheet" and GB/T 25827-2010 "General Purpose of High Temperature Alloy Sheet (Strip) Materials".

Technical Requirements. This document is based on GB/T 14996-2010 and incorporates content from GB/T 25827-2010. This document and...

Compared with GB/T 14996-2010, apart from structural adjustments and editorial changes, the main technical changes are as follows.

a) Added GH1140, GH2132, GH3030, GH3039, GH3044, GH3536, GH3625, GH4145, and GH4169.

and 10 high-temperature alloy grades of cold-rolled strip, including GH5188, and related technical requirements (see Chapter 6);

b) The recommended lower limit of the heat treatment temperature for solution treatment delivery of GH3128 alloy plates has been changed (see 6.2, Table 5 of the 2010 edition);

c) The technical requirements for dimensions and shape have been changed (see 6.8, Chapter 4 of the 2010 edition);

d) The test methods for chemical components have been changed (see 7.1, Table 10 of the 2010 edition);

e) The judgment and re-verification rules have been changed (see 8.4, 7.4 in the 2010 version).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China Iron and Steel Association.

This document is under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC183).

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The release history of this document and the document it replaces is as follows.

- First published in 1982 as GB n180-19821, first revised in 1994 as GB/T 14996-1994, and in 2010 Second revision;
- This is the third revision and it has been incorporated into GB/T 25827-2010.

1 Scope

This document specifies the ordering details, manufacturing process, technical requirements, and inspection procedures for cold-rolled sheets and strips of wrought high-temperature alloys (hereinafter referred to as alloys).

The test rules, packaging, markings, and quality certificates describe the corresponding test methods.

This document applies to high-temperature alloy cold-rolled sheets (hereinafter referred to as sheets) with a nominal thickness of 0.50mm to 4.00mm and a nominal thickness of...

High-temperature alloy cold-rolled strip with a thickness of 0.10mm~1.30mm (of which GH4145, GH4169 and GH5188 alloy strips have a nominal thickness of...).

0.10mm~0.80mm (hereinafter referred to as strip).

2 Normative references

GB/T 222

GB/T 223
GB/T 228.1
GB/T 228.2
GB/T 230.1
GB/T 232
GB/T 235
GB/T 247
GB/T 708-2019
GB/T 2039
GB/T 4340.1
GB/T 6394
GB/T 8651
GB/T 11170
GB/T 14992
GB/T 14999.1
GB/T 20066
GB/T 20123
GB/T 20124
GB/T 20127
GB/T 38939

3 Terms and Definitions

The terms and definitions defined in GB/T 14992 apply to this document.

4 Order details

Contracts or orders placed in accordance with this document should include the following.

- a) This document number;
- b) Product Name;
- c) Alloy grade;
- d) Weight (or quantity);

- e) Smelting methods (see 5.1);
- f) Delivery status (see 5.2);
- g) Size specifications;
- h) Strip dimensional tolerance group (see 6.8.2.1);
- i) Standard and multiple lengths (please specify if required);
- j) Surface quality group of the sheet material (see 6.7.1.2);
- k) Items or specifications to be negotiated by both the supplier and the buyer and specified in the contract (if not specified, the supplier shall select them);
- l) Other special requirements.

5.1 Smelting Method

The alloy grade and smelting method shall conform to the provisions of Table 1, or other alloys that meet the requirements of this document and are agreed upon by both the supplier and the purchaser may be used.

Refining methods. The smelting methods used should be specified in the contract and quality certificate.

Table 1 Alloy Grades and Smelting Methods alloy Brand product category electric arc furnace Electroslag remelting electric arc furnace Vacuum arc remelting Non-vacuum induction Electroslag remelting Non-vacuum induction Vacuum arc remelting Vacuum induction Electroslag remelting Vacuum induction vacuum arc Remelting Vacuum induction Electroslag remelting vacuum arc Remelting Vacuum induction vacuum arc Remelting Electroslag remelting GH1035 sheet material - - - - - GH1131 sheet material - - - - - GH1140 Board strip - - - - - GH2018 Sheet Material - - - - - GH2132 Board strip - - - - - - - Table 1 Alloy Grades and Smelting Methods (Continued) alloy Brand product category electric arc furnace Electroslag remelting electric arc furnace Vacuum arc remelting Non-vacuum induction Electroslag remelting Non-vacuum induction Vacuum arc remelting Vacuum induction Electroslag remelting Vacuum induction vacuum arc Remelting Vacuum induction Electroslag remelting vacuum arc Remelting Vacuum induction vacuum arc Remelting Electroslag remelting GH2302 sheet material - - - - - GH3030 Board strip - - - - - GH3039 Board strip - - - - - GH3044 Board strip - - - - - GH3128 sheet material - - - - - GH3536 Board strip - - GH3625 Board strip - - - - - GH4033 Sheet Material - - - - - GH4099 sheet material - - - - - GH4145 Board strip - - - - - - GH4169 Board strip - - - - - GH5188 Board strip - - - - - Note. - indicates the smelting method used.

5.2 Delivery Status