

ICS 77.140.60

CCS H 44



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

GB/T 4241-2025

Replacing GB/T 4241-2017

Stainless steel wire rods for welding

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Issued on: August 29, 2025

Implemented on: March 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Classification and designations	6
5 Ordering details	6
6 Manufacturing process	7
7 Technical requirements	7
8 Test methods	17
9 Inspection rules	18
10 Packaging, marking, quality certificate	19
Appendix A (Informative) Comparison of designations in this document with some foreign designations	20
References	23

Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 "Directives for standardization - Part 1: Rules for the structure and drafting of standardizing documents".

This document replaces GB/T 4241-2017 "Stainless steel wire rods for welding".

Compared with GB/T 4241-2017, apart from structural adjustments and editorial changes, the main technical changes are as follows.

- a) CHANGE the terms and definitions (see Chapter 3; Chapter 3 of the 2017 edition);
- b) CHANGE the delivery status (see 6.2; 6.3 of the 2017 edition);
- c) CHANGE six designations and their chemical compositions H08Cr23Ni9N, H022Cr22Mn5Ni2N, H022Cr24Ni8N, H022Cr25Ni10Mo4N, H022Cr19NbSi, H022Cr19NbTi (see Tables 1 ~ 3; Tables 1 ~ 3 of the 2017 edition);
- d) CHANGE the chemical composition ranges of some designations (see Tables 1 ~ 3; Tables 1 ~ 3 of the 2017 edition);
- e) CHANGE the provisions on the delivery of allowable chemical composition (smelting analysis) (see 7.1; 6.1 of the 2017 edition);

f) CHANGE the provisions allowing special requirement inspection items to be tested only when requested by the purchaser (see Table 7; Table 7 of the 2017 edition);

g) ADD the numerical rounding provisions (see 9.5);

h) DELETE the comparison of designations between this standard and those in the original standard (see Appendix A of the 2017 edition).

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 shall be under the jurisdiction of the National Steel Standardization Technical Committee (SAC/TC 183).

Drafting organizations of this document. Northeast Special Steel Group Co., Ltd., Fujian Qingtuo Special Steel Technology Research Co., Ltd., Zhejiang Qingshan Steel Co., Ltd., Huzhou Yongxing Special Stainless Steel Co., Ltd., Yantai Huaxin Stainless Steel Co., Ltd., Jiangsu Xinghai Special Steel Co., Ltd., Jiangsu Jinqiao Welding Materials Technology Co., Ltd., Metallurgical Industry Information and Standardization Research Institute.

Stainless steel wire rods for welding

1 Scope

This document specifies the classification, designations, ordering information, manufacturing process, technical requirements, test methods, inspection rules, packaging, marking, quality certificates for stainless steel wire rods for welding.

This document applies to the manufacture of stainless steel wire rods (hereinafter referred to as wire rods) for welding electrodes, gas shielded welding wires, submerged arc welding wires, electroslag welding wires.

2 Normative references

GB/T 223

GB/T 226

GB/T 228.1

GB/T 1979

GB/T 2101

GB/T 8170

GB/T 10561-2023

GB/T 11170

GB/T 14981-2009

GB/T 17505

GB/T 20066

GB/T 20123

GB/T 20124

GB/T 36164

3 Terms and definitions

This document does not contain any terms or definitions that require definition.

4 Classification and designations

Wire rods are classified according to their microstructure into austenitic, austenitic- ferritic (duplex), martensitic, ferritic, precipitation-hardening types. Designations are listed in Tables 1 ~ 5.

5 Ordering details

Contracts or orders placed according to this document shall include the following.

- a) This document number;
- b) Designation;
- c) Specifications;
- d) Weight;
- e) Dimensions and precision level;
- f) Delivery condition;
- g) Smelting method;
- h) Other special requirements.

6.1 Smelting method

Steel shall be smelted using a converter or electric furnace with ladle refining.

Electroslag remelting may also be used. Specific requirements shall be specified in the contract; otherwise, the supplier shall choose the appropriate method.

6.2 Delivery condition

Martensitic steel wire rod shall be delivered in an annealed and pickled condition. Other steel wire rods shall be delivered in a hot-rolled and pickled or solution-pickled condition. With the agreement of both the supplier and the buyer and specified in the contract, wire rods may be delivered in other conditions.

7.1 Designation and chemical composition

The designation and chemical composition (finished product analysis) of the steel shall conform to the provisions of Tables 1 ~ 5. Alternatively, delivery may be made based on chemical composition (smelting analysis) upon agreement between the supplier and the buyer and as specified in the contract. See Appendix A for a comparison of this document with foreign designations.