

ICS 77.140.60

CCS H 59



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

GB/T 37791-2025

Replacing GB/T 37791-2019

**Corrosion-resistant alloy strip electrodes and welding wires or
rods**

耐蚀合金焊带和焊丝

Issued on: August 29, 2025

Implemented on: March 1, 2026

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

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Appendix B , the characteristics and uses of welding wire are shown in Appendix C.

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 37791-2019 "Corrosion-resistant Alloy Welding Strips" and GB/T 37609-2019 "General Technical Specifications for Corrosion-resistant Alloy Welding Strips and Welding Wires".

This document is based on GB/T 37791-2019 and integrates the technical requirements of GB/T 37612-2019, namely "Technical Conditions for Corrosion-Resistant Alloy Welding Wire".

Compared with GB/T 37791-2019, the contents of GB/T 37609-2019 and GB/T 37612-2019 have undergone structural adjustments and editorial changes.

Aside from the changes, the main technical changes are as follows.

a) The scope of application has been changed (see Chapter 1, Chapter 1 of the 2019 edition);

b) Added terms and definitions (see Chapter 3);

- c) An alloy classification has been added (see Chapter 4);
- d) The order details have been changed (see Chapter 5, Chapter 4 in the 2019 edition);
- e) Added the HNS3313 designation and unified numerical designation, and changed some designations and unified numerical designations (see 7.1, Table 1, 2019). (6.1, Table 1, 2018 edition)
- f) Increased surface quality requirements for welding wire (see 7.2.2.1);
- g) The requirements for the shape of the solder strip have been changed (see 7.3.1.2.3, 5.2 in the 2019 version);
- h) The requirements for the number of chemical components to be sampled have been changed (see Table 5, 7.1 of the 2019 version);
- i) Added requirements for welding wire packaging (see 10.1.2.1).

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 2019 as GB/T 37791-2019;
- This is the first revision, incorporating the content of GB/T 37609-2019 and GB/T 37612-2019.

Corrosion-resistant alloy welding strips and welding wires

1 Scope

This document specifies the classification and grades of corrosion-resistant alloy welding strips and wires, ordering details, manufacturing processes, technical requirements, inspection rules, and packaging.

The markings and quality certificates describe the corresponding test methods.

This document applies to corrosion-resistant alloy solid welding strips (hereinafter referred to as welding strips) and corrosion-resistant alloy solid welding wires (hereinafter referred to as welding wires).

2 Normative references

GB/T 223

GB/T 228.1

GB/T 2975-2018

GB/T 8170

GB/T 8647

GB/T 15007

GB/T 20066

GB/T 20123

GB/T 36164

GB/T 38939

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 solder stripelectrode

During welding, the strip serves as both filler metal and electrode current conductor.

3.2 welding wire or rod

During welding, it serves as both filler metal and electrode for conducting current, or it may only serve as filler metal.

4 Classification

The classification of welding strips and welding wires shall comply with the provisions of GB/T 15007.

5 Order details

The contract for orders placed under this document includes the following.

- a) This document number;
- b) Unified numerical designation (alloy grade);
- c) Specifications;
- d) Weight (or quantity);
- e) Delivery status (see 6.2);
- f) Special requirements (see 7.4).

6.1 Smelting Method

Unless otherwise specified, the smelting method shall be selected by the supplier.

6.2 Delivery Status

6.2.1 The welding strip shall be delivered in cold-rolled condition.

6.2.2 Welding wire shall be delivered in cold-drawn or cold-drawn and solution-treated condition. Recommended solution treatment temperatures are given in Appendix A.

7.1 Grade and Chemical Composition

7.1.1 The grade and chemical composition (finished product analysis) of the welding strip and welding wire shall conform to the provisions of Table 1. Stricter chemical compositions may be specified in the contract.

Requirements for the control of composition range, trace elements and residual elements.

7.1.2 A comparison table of domestic and international welding strip and welding wire grades and unified numerical codes (ISC codes) can be found in GB/T 15007. The characteristics and applications of welding strips can be found in [link to relevant documentation].