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

GB/T 36037-2026

Replacing GB/T 36037-2018

Fluxes for submerged arc welding and electroslag welding

埋弧焊和电渣焊用焊剂

(English Translation)

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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 replaces GB/T 36037-2018 "Fluorides for Submerged Arc Welding and Electroslag Welding". Compared with GB/T 36037-2018, the only differences are in the structural adjustments.

Aside from integration and editorial changes, the main technical changes are as follows.

- a) Added terms and definitions defined in GB/T 3375 "Welding Terminology" (see Chapter 3);
- b) The designation H15 for diffused hydrogen has been removed (see 3.2 and 4.4 in the 2018 edition).
- c) Technical requirements and test methods for mechanical inclusions have been added (see 6.2.2 and 7.2.3);

- d) The analysis method for sulfur and phosphorus content in flux has been changed (see 7.1, 6.1 in the 2018 edition).
- e) Sampling requirements for welding manufacturing quality testing have been added (see 7.2.1);
- f) Welding parameters have been changed (see Table 7, 2018 version).
- g) Added the models of nickel and nickel alloy solid welding wires and strips referenced in GB/T 15620 (see Table 8, Table 7 of the 2018 edition).
- h) The welding wire used for metallurgical performance testing and diffusible hydrogen content determination has been added (see 7.4.1 and 7.5).
- j) The inspection rules have been changed (see Chapter 9, Chapter 7 and 8.3 of the 2018 edition);
- k) The technical terms of supply have been changed (see Chapter 10, Chapter 8 of the 2018 edition).

This document is modified to adopt ISO 14174:2019 "Welding materials - Classification of fluxes for submerged arc welding and electroslag welding".

Compared with ISO 14174:2019, this document has undergone many structural adjustments. A table comparing the changes in structural numbering between the two documents is provided.

See Appendix A.

The technical differences between this document and ISO 14174:2019, and the reasons therefor, are as follows.

--Added terms and definitions from GB/T 3375 "Welding Terminology" (see Chapter 3) for normative reference, to be applicable to Chinese technology.

Require;

--A method for classifying flux types has been added (see 4.1) to suit my country's technical requirements;

--The composition of the flux type has been changed (see 4.2) to comply with my country's technical requirements;

--The code representation method for flux application scope categories has been changed (see 5.1 and 5.2) to conform to my country's technical requirements;

--The method of expressing metallurgical performance codes has been changed (see 5.3) to suit my country's technical requirements;

--The requirements for using other test methods and arbitration in the determination of

diffusible hydrogen content (see 5.4) have been deleted to comply with my country's technical requirements;

--The technical requirements and test methods for the sulfur and phosphorus content of the flux have been added (see 6.1 and 7.1) to conform to my country's technical requirements;

--The granularity representation method has been modified (see 6.2.1), and typical examples have been removed to suit my country's technical requirements;

--The particle size designation 2.5 has been added, and the corresponding reference commonly used domestic sieve meshes are provided (see Table 6) to meet my country's technical requirements;

--Technical requirements and test methods for mechanical inclusions have been added (see 6.2.2 and 7.2.3) to conform to my country's technical requirements;

--The technical requirements and test methods for flux welding process performance have been added (see 6.3 and 7.3) to conform to my country's technical requirements;

--The prerequisite of requiring a diffusible hydrogen content test has been added (see 6.4) to comply with my country's technical requirements;

--A test method for particle size has been added (see 7.2.2) to comply with my country's technical requirements;

--The description of the metallurgical performance testing methods has been revised, adding information on welding wires used for metallurgical performance testing and diffusible hydrogen content determination, as well as the selection of welding wires.

The requirements for the silk (see 7.4 and 7.5) shall be in accordance with the technical requirements of our country;

--ISO 14171 has been replaced with the normatively referenced GB/T 5293 (see 7.4.1 and 7.5) to conform to my country's technical requirements;

--The normative reference GB/T 15620 replaces ISO 18274, and GB/T 29713 replaces ISO 14343 (see Table 8).

To meet my country's technical requirements;

--ISO 3690 (see 7.5) has been replaced with the normatively referenced GB/T 3965 to conform to my country's technical requirements;

-- Replace with section 3.2 of GB/T 8170-2008, which is consistent with the rounding rule A of B.3 in ISO 80000-1:2009.

The ISO standard reference clauses have been updated to include GB/T 8170-2008, which is consistent with the rounding rule B.4 in ISO 80000-1:2009.

Section 3.3 (see Chapter 8) facilitates standard implementation;

--Added batching rules, test levels, and sampling requirements; added the normative reference GB/T 25778; and removed the requirement for re-inspection.

The requirements are as follows (see Chapter 9), to facilitate the implementation of the standard;

--The supply technical conditions have been revised, adding normative references to GB/T 25775 and GB/T 25778 (see Chapter 10) to adapt to...

Using my country's technical requirements.

The following editorial changes have been made to this document.

--To harmonize with existing standards, the standard name has been changed to "Fluorides for Submerged Arc Welding and Electroslag Welding";

--The scope description has been changed, and the flux usage and matching solders (see Chapter 1) have been removed to facilitate standard implementation.

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 and is under the jurisdiction of the National Technical Committee on Standardization of Welding and Related Processes (SAC/TC 55).

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1 Scope

This document specifies the type, classification code, technical requirements, test methods, rounding rules, and inspection rules for fluxes used in submerged arc welding and electroslag welding.

And the technical conditions for supply, etc.

This document applies to fluxes used in submerged arc welding and electroslag welding.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.