



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

GB/T 3670-2021

**Covered electrodes for manual metal arc welding of copper and
copper alloys**

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Foreword

This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents.

This Document replaced GB/T 3670-1995 Coated Electrodes for Copper and Copper Alloys.

Compared with GB/T 3670-1995, the major technical changes of this Document are as follows

besides the structural adjustment and editorial modifications:

--- Retain models of all 12 electrode in the original standard; re-compiled the models according to ISO 17777:2016; and add 11 models, such as ECu1892, ECu1893, ECu5180, ECu5180B, ECu5410, ECu5210, ECu6100A, ECu6325, ECu6328, ECu7158 and ECu6561 (see 4.2 of this Edition; 3.2 of 1995 Edition);

--- Delete the technical requirements for mechanical properties (see 4.4 and 5.4 of 1995 Edition).

This Document uses the redrafting method to modify and adopt ISO 17777:2016 Welding Consumables - Covered Electrodes for Manual Metal Arc Welding of Copper and Copper Alloys - Classification.

Compared with ISO 17777:2016, this Document made some structural adjustments.

Appendix

A list the comparison list of changes in clauses number between this Document and ISO 17777:2016.

Compared with ISO 17777:2016, this Document has the technical differences. Appendix B gives the list of corresponding technical differences and causes.

This Document also made the following editorial modifications:

--- Modify the standard name into Covered Electrodes for Manual Metal Arc Welding of Copper and Copper Alloys.

--- The Table C.1 adds the column of "this Document";

--- Delete the bibliography.

Please note some contents of this Document may involve the patents. The issuing agency of

this Document shall not assume the responsibility to identify these patents.

This Document was proposed by and under the jurisdiction of National Technical Committee

on Welding of Standardization Administration of China (SAC/TC 55).

Drafting organizations of this Document: Harbin Welding Institute Limited Company; Shanghai Cimic Welding Consumables Co., Ltd.; Jinzhou Special Welding Consumable Co., Ltd.; Wuhan Temo Welding Consumables Co., Ltd.; Kunshan Gintune Welding Co., Ltd.; Covered Electrodes for Manual Metal Arc Welding of Copper and Copper Alloys

1 Scope

This Document specifies the models, technical requirements, test methods, re-inspection and

technical delivery conditions of copper and copper alloy electrodes.

This Document applies to copper and copper alloy electrodes (hereinafter referred to as "electrodes") whose copper content exceeds any other element content in the deposited metal.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates

indicated are applicable to this Document; for the undated documents, only the latest version

(including all the amendments) is applicable to this Document.

GB/T 25775 Technical Delivery Conditions for Welding Consumables - Type of Product Dimensions Tolerances and Markings (GB/T 25775-2010, ISO 544:2003, MOD)

GB/T 25777 Preparation Methods of Deposited Metal Specimens for Chemical Analysis (GB/T 25777-2010, ISO 6847:2000, IDT)

GB/T 25778 Procurement Guidelines for Welding Consumables (GB/T 25778-2010, ISO 14344:2010, MOD)

3 Terms and Definitions

There is no terms and definitions that need to be given in this Document.

4.1 Classification of models

The electrode models are classified according to the chemical composition of the deposited metal. See Appendix C for comparison of electrode models in this Document with other relevant standards. See Appendix D for electrode-related physical properties and application

examples.

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