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Steel and cast iron - Determination of copper content - Flame atomic absorption spectrometric method (ISO 4943:2022)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/22

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English Version

**Steel and cast iron - Determination of copper content -
Flame atomic absorption spectrometric method (ISO
4943:2022)**

Aciers et fontes - Détermination de la teneur en cuivre -
Méthode par spectrométrie d'absorption atomique
dans la flamme (ISO 4943:2022)

Stahl und Gusseisen - Bestimmung des Kupfergehalts -
Flammenatomabsorptionsspektrometrisches
Verfahren (ISO 4943:2022)

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EN ISO 4943:2022 (E)

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European foreword

This document (EN ISO 4943:2022) has been prepared by Technical Committee ISO/TC 17 "Steel" in collaboration with Technical Committee CEN/TC 459/SC 2 "Methods of chemical analysis for iron and steel" the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2023, and conflicting national standards shall be withdrawn at the latest by March 2023.

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Endorsement notice

The text of ISO 4943:2022 has been approved by CEN as EN ISO 4943:2022 without any modification.

INTERNATIONAL STANDARD

ISO 4943

Second edition
2022-08

Steel and cast iron — Determination of copper content — Flame atomic absorption spectrometric method

*Aciers et fontes — Détermination de la teneur en cuivre — Méthode
par spectrométrie d'absorption atomique dans la flamme*



Reference number
ISO 4943:2022(E)

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ISO 4943:2022(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 1, *Methods of determination of chemical composition*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459/SC 2, *Methods of chemical analysis for iron and steel*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 4943:1985), which has been technically revised. The main changes are as follows:

- extension of the determination range;
- re-organization of a precision test;
- re-assessment of the precision data.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Steel and cast iron — Determination of copper content — Flame atomic absorption spectrometric method

1 Scope

This document specifies a flame atomic absorption spectrometric method for the determination of copper in steel and cast iron.

The method is applicable to copper contents in the range of 0,003 % (mass fraction) to 3,0 % (mass fraction).

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 648, *Laboratory glassware — Single-volume pipettes*

ISO 1042, *Laboratory glassware — One-mark volumetric flasks*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 14284, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition*

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