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Determination of ferrite content in austenitic stainless steel castings (ISO 13520:2023)

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. 06/23

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English Version

Determination of ferrite content in austenitic stainless steel castings (ISO 13520:2023)

Détermination du taux de ferrite des pièces moulées en acier inoxydable austénitique (ISO 13520:2023)

Bestimmung des Ferritgehaltes in austenitischem nichtrostenden Stahlguss (ISO 13520:2023)

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EN ISO 13520:2023 (E)

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European foreword

This document (EN ISO 13520:2023) has been prepared by Technical Committee ISO/TC 17 "Steel" in collaboration with Technical Committee CEN/TC 459/SC 11 "Steel castings and forgings" the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 13520:2023 has been approved by CEN as EN ISO 13520:2023 without any modification.

INTERNATIONAL STANDARD

ISO 13520

Third edition
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Determination of ferrite content in austenitic stainless steel castings

*Détermination du taux de ferrite des pièces moulées en acier
inoxydable austénitique*



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ISO 13520:2023(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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This document was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 11, *Steel castings*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 459/SC 11, *Steel castings and forgings*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 13520:2015), of which it constitutes a minor revision. The changes are as follows:

- ASTM A799 and BNIF 345 where moved to the bibliography as they are not cited normatively;
- editorial revision.

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.

Determination of ferrite content in austenitic stainless steel castings

1 Scope

Procedures are covered for estimating ferrite content in certain grades of austenitic iron-chromium-nickel alloy castings that have compositions balanced to create the formation of ferrite as a second phase in amounts controlled within specified limits. Methods are described for estimating ferrite content by chemical, magnetic and metallographic means.

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 4990, *Steel castings — General technical delivery requirements*

ISO 9042, *Steels — Manual point counting method for statistically estimating the volume fraction of a constituent with a point grid*

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