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Steels - Determination of nitrogen (trace amounts) - Spectrophotometric method

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. 08/24

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EUROPEAN STANDARD

EN 10179

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 10179:1989

English Version

**Steels - Determination of nitrogen (trace amounts) -
Spectrophotometric method**Aciers - Détermination de l'azote (à l'état de traces) -
Méthode spectrophotométriqueStähle - Bestimmung von Stickstoff (Spurengehalte) -
Photometrisches Verfahren

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EN 10179:2024 (E)

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European foreword

This document (EN 10179:2024) has been prepared by 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of an identical text or by endorsement, at the latest by December 2024, and conflicting national standards shall be withdrawn at the latest by December 2024.

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.

This document supersedes EN 10179:1989.

In comparison with the previous edition, the following technical modifications have been made:

- normative references: updated;
- Clause 3; Terms and definitions: added;
- references 5.10, 5.11, 5.14, 5.17 and 5.18: added;
- Clause 10: updated;
- Bibliography: added.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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EN 10179:2024 (E)**1 Scope**

This document specifies a spectrophotometric method for the determination of nitrogen in steels. The method is primarily intended for the determination of total nitrogen in very low contents in non-alloy steels.

It can be used, however, for any low nitrogen ferrous alloy that is soluble in hydrochloric acid provided that the acid-resistant form of silicon nitride is not present. These highly resistant nitrides have been found only in samples of silicon steels manufactured without aluminium addition and then only in sheet material.

The method is applicable to nitrogen contents from 0,000 5 % (by mass) to 0,005 % (by mass).

The precision data of the present method are given in Annex A.

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.

EN ISO 648, *Laboratory glassware — Single-volume pipettes (ISO 648)*

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

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

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