BS EN ISO 11652:2022

BSI Standards Publication

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

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National foreword

This British Standard is the UK implementation of EN ISO 11652:1997. It is identical to ISO 11652:1997. It supersedes BS 6200-3.11.3:1997, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/102, Methods of Chemical Analysis for Iron and Steel.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

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English Version

Steel and iron - Determination of cobalt content - Flame atomic absorption spectrometric method (ISO 11652:1997)

Aciers et fontes - Dosage du cobalt - Méthode par spectrométrie d'absorption atomique dans la flamme (ISO 11652:1997)

Stahl und Eisen - Bestimmung des Cobaltgehaltes - Flammenatomabsorptionsspektrometrisches Verfahren (ISO 11652:1997)

This European Standard was approved by CEN on 20 March 2022.

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European foreword

The text of ISO 11652:1997 has been prepared by Technical Committee ISO/TC 17 "Steel" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 11652:2022 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

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INTERNATIONAL STANDARD

ISO 11652

First edition
1997-08-15

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

Aciers et fontes — Dosage du cobalt — Méthode par spectrométrie d'absorption atomique dans la flamme

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11652 was prepared by Technical Committee ISO/TC 17, *Steel*, Subcommittee SC 1, *Methods of determination of chemical composition.*

Annex A forms an integral part of this International Standard. Annexes B and C are for information only.

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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet central@iso.ch
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

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Steel and iron – Determination of cobalt content – Flame atomic absorption spectrometric method

1 Scope

This International Standard specifies a flame atomic absorption spectrometric method for the determination of the cobalt content in steel and iron.

The method is applicable to cobalt contents between 0,003 % (*m/m*) and 5,0 % (*m/m*).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 385-1:1984, *Laboratory glassware — Burettes — Part 1: General requirements.*

ISO 648:1977, *Laboratory glassware — One-mark pipettes.*

ISO 1042:—[1], *Laboratory glassware — One-mark volumetric flasks.*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods.*

ISO 5725-1:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 1: General principles and definitions.*

ISO 5725-2:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method.*

ISO 5725-3:1994, *Accuracy (trueness and precision) of measurement methods and results — Part 3: Intermediate measures of the precision of a standard measurement method.*

ISO 14284 :1996, *Steel and iron — Sampling and preparation of samples for the determination of chemical composition.*

3 Principle

Dissolution of a test portion in hydrochloric, nitric and perchloric acids.

Spraying of the solution into an air-acetylene flame.

Spectrometric measurement of the atomic absorption of the 240,7 nm spectral line emitted by a cobalt hollow cathode lamp.

1) To be published. (Revision of ISO 1042:1983)

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