

Copper and copper alloys — Analysis by spark source optical emission spectrometry (S-OES)

The European Standard EN 15079:2007 has the status of a British Standard

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National foreword

This British Standard was published by BSI. It is the UK implementation of EN 15079:2007.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Copper and copper alloys - Analysis by spark source optical emission spectrometry (S-OES)

Cuivre et alliages de cuivre - Analyse par spectrométrie
d'émission optique à étincelles (SEO-E)

Kupfer und Kupferlegierungen - Analyse durch optische
Emissionsspektrometrie mit Funkenanregung (F-OES)

This European Standard was approved by CEN on 26 April 2007.

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Foreword

This document (EN 15079:2007) has been prepared by Technical Committee CEN/TC 133 "Copper and copper alloys", the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by November 2007, and conflicting national standards shall be withdrawn at the latest by November 2007.

Within its programme of work, Technical Committee CEN/TC 133 requested CEN/TC 133/WG 10 "Methods of analysis" to prepare this standard:

EN 15079, *Copper and copper alloys — Analysis by spark source optical emission spectrometry (S-OES)*.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a routine method for the analysis of copper and copper alloys by spark source optical emission spectrometry (S-OES). The method is applicable to all elements except copper commonly present in copper and copper alloys present as impurities or minor or main constituents, and detectable by S-OES.

2 Normative references

The following referenced documents are indispensable for the application 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 1811-1, *Copper and copper alloys — Selection and preparation of samples for chemical analysis — Part 1: Sampling of cast unwrought products*

ISO 1811-2, *Copper and copper alloys — Selection and preparation of samples for chemical analysis — Part 2: Sampling of wrought products and castings*

NOTE Informative reference to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in the Bibliography.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 reference material

material, one or more of whose property values are sufficiently homogeneous and well established to be used for the calibration of an apparatus, the assessment of a measurement method, or for assigning values to materials

3.2 certified reference material

reference material, accompanied by a certificate, one or more of whose property values are certified by at least one procedure which establishes its traceability to an accurate realization of the unit in which the property values are expressed, and for which each certified value is accompanied by an uncertainty at a stated level of confidence

3.3 test sample

representative quantity of material for testing purposes

3.4 drift control samples spectrometer control samples

series of homogeneous specimens that contain all the elements which have been calibrated and that cover the low and high concentrations of the calibration range for each element, to be used in detecting variations over time

NOTE The same samples can also be used for statistical process control (SPC) of the instrument.

3.5 recalibration samples

very homogeneous samples at both low and high concentrations in the calibration ranges to be used for recalibration of the spectrometer