

English Version

Iron and steel - European standards for the determination of chemical composition

Aciers et fontes - Normes européennes pour la détermination de la composition chimique

Eisen und Stahl - Europäische Normen für die Bestimmung der chemischen Zusammensetzung

This Technical Report was approved by CEN on 13 August 2018. It has been drawn up by the Technical Committee ECISS/TC 102.

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European foreword

This document (CEN/TR 10261:2018) has been prepared by Technical Committee ECISS/TC 102 “Methods of chemical analysis for iron and steel”, the secretariat of which is held by SIS.

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 CEN/TR 10261:2013.

In comparison with the previous edition of CEN/TR 10261:2013, the following significant technical changes were made:

- Clause 1: updating the link to the webpage of CEN;
- in 4.1, for carbon, withdrawal of EN 10036;
- in 4.1, for calcium, reference updated;
- in 4.1, for chromium, addition of prCEN/TR 10367;
- in 4.1, for copper, replacement of EN 24946:1990 and EN 24946:1990/AC:1991 with EN ISO 4946;
- in 4.1, for lead, reference updated;
- in 4.1, for manganese, EN 24159:1989 moved to Annex A;
- in 4.1, addition of EN 10361, for nickel;
- in 4.1, for nickel, replacement of EN 24938:1990 and EN 24938:1990/AC:1991 with EN ISO 4938;
- in 4.1, for nickel, reference updated;
- in 4.1, for selenium, addition of CEN/TR 10364;
- in 4.1, for silicon, replacement of EN 24829-2:1990 and EN 24829-2:1990/AC:1991 with EN ISO 4829-2;
- in 4.1, for titanium, updating the date of publication of EN 10211;
- in 4.2, addition of EN 10355.

1 Scope

This document lists, under Clause 4, the European Standards which are currently available for the determination of the chemical composition of steels and cast irons.

In Clause 5, this document provides details on the range of application and gives the principle of the method described in each standard.

Items which are under preparation as European Standards or as CEN Technical Reports by ECISS/TC 102 are available on the webpage of CEN, through the link https://standards.cen.eu/dyn/www/f?p=204:22:0:::FSP_ORG_ID:733643&cs=123E58BF77E3DE921F548B80C5FF2E5D4.

Annex A gives a list of other European Standards and CEN Technical Reports applicable for the determination of the chemical composition of steels and cast irons.

Annex B gives a list of withdrawn Euronorms, together with the corresponding replacement European Standards, if any.

Annex C shows graphical representations of the content ranges of the methods listed in this document. Figure C.1 gives the content ranges of the referee methods, Figure C.2 gives the content ranges of the routine methods and Figure C.3 represents the fields of application of all the methods described.

Annex D provides a trilingual key of the abbreviations used in the Figures given in Annex C.

NOTE Three methods applicable for the analysis of some ferro-alloys are listed in Annex A.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1 referee method
stoichiometric method or a method calibrated against pure metals or stoichiometric compounds, which is to be used for certification analysis or in case of arbitration

3.2 routine method
method calibrated against reference materials or certified reference materials, or against standard solutions commercially available, which is widely used for control purposes (day to day analysis)