

<b>STN</b>	<b>Ocele</b> <b>Stanovenie obsahu vápnika</b> <b>Metóda plameňovej atómovej absorpčnej</b> <b>spektrometrie (FAAS)</b>	<b>STN</b> <b>EN 10177</b>  42 0535
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Steels - Determination of calcium content - Flame atomic absorption spectrometric method (FAAS)

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. 12/19

Obsahuje: EN 10177:2019

Oznámením tejto normy sa ruší  
STN EN 10177 (42 0535) z októbra 1993

**129921**

EUROPEAN STANDARD

**EN 10177**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2019

ICS 77.040.30

Supersedes EN 10177:1989

English Version

**Steels - Determination of calcium content - Flame atomic absorption spectrometric method (FAAS)**

Aciers - Détermination de la teneur en calcium -  
Méthode par spectrométrie d'absorption atomique  
dans la flamme (SAAF)

Stahl - Bestimmung des Calciumgehalt -  
Flammenatomabsorptionsspektrometrisches  
Verfahren (FAAS)

This European Standard was approved by CEN on 22 April 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

**EN 10177:2019 (E)**

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## European foreword

This document (EN 10177:2019) has been prepared by Technical Committee CEN/TC 459 “ECISS - European Committee for Iron and Steel Standardization”<sup>1</sup>, 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 December 2019, and conflicting national standards shall be withdrawn at the latest by December 2019.

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 10177:1989.

In comparison with EN 10177:1989, the following significant technical changes were made:

- Clause 1: limits of the scope changed;
- Normative references: revised;
- Clause 4: possibility for using aqua regia for the dissolution and other suitable radiation sources added;
- Clause 5: preparation of iron base solution added;
- 8.3: details regarding the preparation of the test solution added
- 8.3.3: calibration solutions expanded;
- 8.3.5 and Clause 9: bracketing method for the spectrometric measurements added;
- Clause 10: editorially updated;
- Bibliography: added.

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

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<sup>1</sup> Through its subcommittee SC 2 “Methods of chemical analysis for iron and steel” (secretariat: SIS)

**EN 10177:2019 (E)****1 Scope**

This document specifies a flame atomic absorption spectrometric method (FAAS) for the determination of calcium content in non-alloy and low alloy steels.

The method is applicable to calcium contents between 4 µg/g and 120 µg/g.

The method can be adapted to higher calcium contents by changing the test portion or the dilution process, provided the criteria in 6.2.2 and 6.2.3 are still met.

**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)*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**