



SLOVENSKI STANDARD SIST EN ISO 17380:2013

01-oktober-2013

Kakovost tal - Določevanje celotnega cianida in lahko sprotljivega cianida - Metoda kontinuirane pretočne analize (ISO 17380:2013)

Soil quality - Determination of total cyanide and easily liberatable cyanide - Continuous-flow analysis method (ISO 17380:2013)

Bodenbeschaffenheit - Bestimmung des Gehalts an gesamtem Cyanid und leicht freisetzbarem Cyanid - Verfahren mittels kontinuierlicher Durchflußanalyse (ISO 17380:2013)

Qualité du sol - Détermination des cyanures totaux et des cyanures aisément libérables -
Méthode d'analyse en flux continu (ISO 17380:2013)

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Ta slovenski standard je istoveten z: EN ISO 17380:2013

ICS:

13.080.10 Kemijske značilnosti tal Chemical characteristics of soils

SIST EN ISO 17380:2013

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EUROPEAN STANDARD

EN ISO 17380

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2013

ICS 13.080.10

English Version

Soil quality - Determination of total cyanide and easily liberatable cyanide - Continuous-flow analysis method (ISO 17380:2013)

Qualité du sol - Détermination des cyanures totaux et des cyanures aisément libérables - Méthode d'analyse en flux continu (ISO 17380:2013)

Bodenbeschaffenheit - Bestimmung des Gehalts an gesamtem Cyanid und leicht freisetzbarem Cyanid - Verfahren mittels kontinuierlicher Durchflußanalyse (ISO 17380:2013)

This European Standard was approved by CEN on 8 June 2013.

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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.

CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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Foreword

This document (EN ISO 17380:2013) has been prepared by Technical Committee ISO/TC 190 "Soil quality" in collaboration with Technical Committee CEN/TC 345 "Characterization of soils" the secretariat of which is held by NEN.

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 2013, and conflicting national standards shall be withdrawn at the latest by December 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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, 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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The text of ISO 17380:2013 has been approved by CEN as EN ISO 17380:2013 without any modification.

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INTERNATIONAL
STANDARD

ISO
17380

Second edition
2013-06-15

**Soil quality — Determination of
total cyanide and easily liberatable
cyanide — Continuous-flow analysis
method**

*Qualité du sol — Détermination des cyanures totaux et des cyanures
aisément libérables — Méthode d'analyse en flux continu*

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ISO 17380:2013(E)**Foreword**

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17380 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 3, *Chemical methods and soil characteristics*.

This second edition cancels and replaces the first edition (ISO 17380:2004), which has been technically revised.

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Introduction

Cyanides may be present in soil as cyanide ions and as complex cyanides. They can be determined as easily-liberatable cyanide or as total cyanide. Complex cyanide can be calculated by subtracting the easily-liberatable cyanide result from the total cyanide result. This International Standard specifies the determination of easily-liberatable cyanide, complex cyanides and total cyanide.

Methods using flow analysis automate wet chemical procedures and are particularly suitable for the processing of many analytes in water or soil extracts in large sample series at a high analysis frequency. The continuous flow analysis (CFA) method uses an automated dosage of the sample into a flow system (manifold) where the analytes in the sample react with the reagent solution on their way through the manifold. The sample preparation may be integrated in the manifold. The reaction product is measured in a photometric detector (e.g. flow cell photometer).^{[1],[2]}

In ISO 11262 a manual method for the photometric and volumetric determination of total cyanide in soil samples is described. It should be noted that the total cyanide results in soil samples as described in ISO 11262 may show slight differences from this International Standard. These differences are not considered to be very significant for this analysis. The easily-liberatable cyanide test has been removed from ISO 11262 because the validation data for this method were very poor.

For the analysis of cyanide in water ISO 14403-1^[6] and ISO 14403-2^[7] can be applied. The analytical procedure described in ISO 14403-2^[7] is identical to the one specified in this International Standard.

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