SLOVENSKI STANDARD
SIST EN ISO 25177:2020

01-januar-2020

Nadomešča:
SIST EN ISO 25177:2011

Kakovost tal - Terenski opis tal (ISO 25177:2019)

Soil quality - Field soil description (ISO 25177:2019)

Bodenbeschaffenheit - Bodenbeschreibung im Felde (ISO 25177:2019)

Qualité du sol - Description du sol sur le terrain (ISO 25177:2019)

Ta slovenski standard je istoveten z: **EN ISO 25177:2019**

ICS:

13.080.05	Preiskava tal na splošno	Examination of soils in general

SIST EN ISO 25177:2020 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 25177

October 2019

ICS 13.080.01

Supersedes EN ISO 25177:2011

English Version

Soil quality - Field soil description (ISO 25177:2019)

Qualité du sol - Description du sol sur le terrain (ISO 25177:2019)

Bodenbeschaffenheit - Bodenbeschreibung im Felde (ISO 25177:2019)

This European Standard was approved by CEN on 27 August 2019.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents

Page

European foreword

This document (EN ISO 25177:2019) 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of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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.

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Endorsement notice

The text of ISO 25177:2019 has been approved by CEN as EN ISO 25177:2019 without any modification.

INTERNATIONAL STANDARD

ISO 25177

Second edition
2019-09

Soil quality — Field soil description

Qualité du sol — Description du sol sur le terrain

Reference number
ISO 25177:2019(E)

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Published in Switzerland

Contents

Page

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*.

This second edition cancels and replaces the first edition (ISO 25177:2008), which has been technically revised.

The main changes compared to the previous edition is as follows.

— The 2015 edition of the World Reference Base for soil resources[24] has been adapted.

— References to geotechnical standards ISO 14688-1[3] and ISO 14688-2[4] have been made.

— A new Clause 4 describing how to use this document has been added and subsequent clauses have been renumbered.

— A new Clause 5 describing objectives and methods has been added and subsequent clauses have been renumbered. The aspects to describe and how to do this is more separate from the observations and background information.

— The numbering and encoding have been made more consequent and logical.

— New aspects about coarse anthropogenical elements, oil-water reaction pan and signs of pollution or contamination have been added.

— A new Clause 11 about reporting has been added.

— A new Annex A about landforms has been added and subsequent annexes have been renumbered.

— The former Annex B listing reference soil groups of the WRB[24] has been removed.

— A new Annex G about common coarse elements found in soil and soil surface has been added.

— A new Annex H about recording soil description observations for specific types of soil quality investigations has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Traditionally, description of soils and their environment was carried out as parts of soil surveys and soil inventories, the purpose being to describe the pedogenic context of the soil and assess applied aspects, principally agronomic potentials.

Today, many soil observations are made as part of either much broader, or alternatively more focused, environmental studies, and might include analysis for objectives such as:

— identifying human influences on soils, with, particular attention being paid to the negative effects of these influences (for example contamination with possible hazardous substances, or deterioration of physical soil properties);

— land protection within the context of sustainable agriculture and forestry;

— assessing the fate of contaminants introduced to the soil;

— assessing the consequences arising from changes in the use of the soil;

— setting up monitoring programs for specific purposes (such as observation of changes of soil properties over time);

— developing spatial databases (used in the context of GIS) aimed at facilitating the geographical representation of soils;

— and for many other purposes.

While the general framework of this document has stayed the same in this updated version, additions include references to the ISO 18400 series (see Figure 1), observations for soil contamination, and description of artificial material and soil layers.

The description of soils and sites is often accompanied by field and laboratory measurements, and therefore field measurement observations are included in this document.

The original text was based on aspects of the traditional approach to soil description {for example the “Guidelines for soil description” from the FAO (Rome 2006)[30] and the soil type classification from the World Reference Base for soil resources (WRB)[24]}.

Soil descriptions and associated soil data are used and re-used for a variety of purposes. For wider utilization of data from soil descriptions, this document can be used in conjunction with other (commonly and publicly available) standards. Some types of soil information, specifically soil contamination data and data on anthropogenic and exogenous material, were not available in earlier versions and have been included here.

Depending on the objective/s of an investigation, specific observations of interest will be made and recorded. Even within a particular field of interest, the degree of detail in the soil description in the field will vary, depending on the scope of the project.

The quality of field soil descriptions is strongly dependent on the knowledge and especially the experience of the person making and/or recording the observations in the field, since most field observations are estimations (sometimes with the help of reference materials and devices like colour-charts, magnifiers, sieves, or scatter diagrams).

Soil quality — Field soil description

1 Scope

This document provides guidance on the description of soil in the field and its environmental context. It is applicable to natural, near-natural, urban and industrial sites. The soil observations and measurements can be made on a project site level, on a plot level, on layer or horizon level and on specific soil constituents.

It also provides guidance on how to describe layers of anthropogenic (artificial) material or layers that were not modified by pedogenic processes in the strict sense and how to describe coarse material of natural or artificial origin.

This document can be used in combination with other publications that provide guidance or requirements regarding specific aspects of soil observations and measurements.

NOTE 1 It might not be possible or necessary to record data under all the headings listed in Clauses 4 to 11.

NOTE 2 Overall guidance for presentation of information from soil surveys is given in ISO 15903.

NOTE 3 The guidance provided assumes that sampling will be done in accordance with ISO 18400.

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.

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

ISO 3166-2, *Codes for the representation of names of countries and their subdivisions — Part 2: Country subdivision code*

ISO 11074, *Soil quality — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11074 and the following apply.

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at: http://www.electropedia.org

3.1
observation
act of observing a property, with the goal of producing an estimate of the value of the property

Note 1 to entry: Adapted from ISO 19156.