



SLOVENSKI STANDARD SIST EN ISO 19258:2018

01-december-2018

Nadomešča:

SIST EN ISO 19258:2011

SIST ISO 19258:2006

Kakovost tal - Navodilo za določanje vrednosti naravnega ozadja (ISO 19258:2018)

Soil quality - Guidance on the determination of background values (ISO 19258:2018)

Bodenbeschaffenheit - Leitfaden zur Bestimmung von Hintergrundwerte (ISO 19258:2018)

Qualité du sol - Lignes directrices pour la détermination des valeurs de bruit de fond (ISO 19258:2018)

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Ta slovenski standard je istoveten z: EN ISO 19258:2018

ICS:

13.080.99

Drugi standardi v zvezi s
kakovostjo tal

Other standards related to
soil quality

SIST EN ISO 19258:2018

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 19258

September 2018

ICS 13.080.99

English Version

**Soil quality - Guidance on the determination of
background values (ISO 19258:2018)**

Qualité du sol - Lignes directrices pour la
détermination des valeurs de bruit de fond (ISO
19258:2018)

Bodenbeschaffenheit - Leitfaden zur Bestimmung von
Hintergrundwerte (ISO 19258:2018)

This European Standard was approved by CEN on 3 August 2018.

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European foreword

This document (EN ISO 19258:2018) 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of an identical text or by endorsement, at the latest by March 2019, and conflicting national standards shall be withdrawn at the latest by March 2019.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 ISO 19258:2011.

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The text of ISO 19258:2018 has been approved by CEN as EN ISO 19258:2018 without any modification.

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INTERNATIONAL STANDARD

**ISO
19258**

Second edition
2018-08

Soil quality — Guidance on the determination of background values

*Qualité du sol — Recommandations pour la détermination des
valeurs de fond*

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Reference number
ISO 19258:2018(E)

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Published in Switzerland

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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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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. (standards.itech.ai)

This document was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 7, *Impact assessment*. SIST EN ISO 19258:2018

<https://standards.itech.ai/catalog/standards/sist/598a87c2-9751-45f8-9243-84cf1d709748/iso-19258>

This second edition cancels and replaces the first edition (ISO 19258:2005), which has been technically revised. The main changes compared to the previous edition are as follows:

- [Clauses 2](#) and [3](#), and subclauses [5.3](#), [5.4](#), [5.4](#) and [Annex B](#) (formerly Annex C) have been completely technically revised;
- 5.2.2 has been revised and the structure of its subclauses has been changed to [5.2.2.1](#), *Basic parameters*, [5.2.2.2](#), *Persistent compounds* (split up into [5.2.2.2.1](#), *Inorganic substances*, and [5.2.2.2.2](#), *Organic substances*), and [5.2.2.3](#) *Non persistent compounds* (added);
- text has been added to [5.2.5](#);
- “typological” has been replaced by “judgemental” throughout the document;
- “scale of sampling” has been deleted from [Annex A](#);
- the Bibliography has been updated.

Soil quality — Guidance on the determination of background values

1 Scope

This document gives guidelines for the principles and main methods for the determination of background values for inorganic and organic substances in soils at a local/regional scale. The site scale is excluded.

It gives guidelines for sampling and data processing strategies. It identifies methods for sampling and analysis.

This document does not apply to the determination of background values for groundwater and sediments.

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 11074, *Soil quality — Vocabulary*

3 Terms and definitions

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<https://standards.iteh.ai/catalog/standards/sist/598a87c2-9751-45f8-9243-164b5f083a00/iso-11074-2015>

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

background concentration

concentration of an element or a substance characteristic of a soil type in an area or region arising from both natural sources and anthropogenic diffuse sources such as atmospheric deposition

[SOURCE: ISO 11074:2015, 3.5.1, modified — In the definition, “an element or” has been introduced before “a substance” and “anthropogenic” has replaced “non-natural”. Note 1 to entry has been removed.]

3.2

background value

statistical characteristics (3.8) of the total (natural pedo-geochemical and anthropogenic) content of a substances in soil

Note 1 to entry: Commonly expressed in terms of average, typical, median, mode, a range of values or a background value.

[SOURCE: ISO 11074:2015, 3.5.2, modified — Note 1 to entry has been added from ISO 11075:2014, 3.5.1.]

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3.3
diffuse source input
 input of a substance emitted from moving sources, from sources with a large area or from many sources

Note 1 to entry: In practice, two situations are commonly recognized: rural areas with diffuse source inputs typically from land spreading and aerial deposition; and urban areas where the diffuse source inputs come typically from traffic and industrial activities.

Note 2 to entry: Diffuse source input usually leads to sites that are relatively uniformly contaminated. At some sites, the input conditions can nevertheless cause a higher local input, such as near the source or where atmospheric deposition/rain is increased. Two types of main diffuse source input can be considered: one in rural areas (e.g. atmospheric deposits, spreading); and one in urban areas (e.g. traffic, industries).

[SOURCE: ISO 11074:2015, 3.3.9, modified — Note 1 to entry has been replaced with new text. The last sentence in Note 2 to entry has been added.]

3.4
pedo-geochemical concentration
 concentration of a substance in a soil resulting from natural geological and pedological processes, excluding any addition of anthropogenic origin

Note 1 to entry: It is difficult to determine the precise pedo-geochemical concentration of certain substances in soil due to the presence of anthropogenic diffuse contamination.

3.5
pedo-geochemical background value
 statistical characteristic (3.8) of the pedo-geochemical concentration (3.4)

Note 1 to entry: Any estimate of pedo-geochemical background value is prone to certain errors given the uncertainty associated with determining the pedo-geochemical concentration.

[SOURCE: ISO 11074:2015, 3.5.9, modified — In the definition, “concentration” has replaced “content”.]
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3.6
anthropogenic concentration
 concentration of a substance in a soil resulting from anthropogenic origin

3.7
anthropogenic background value
 statistical characteristic (3.8) of the anthropogenic background concentration (3.1) of a substance in soils

3.8
statistical characteristic
 numerical value calculated from a variate (3.10) of a selected parameter of the population

EXAMPLE Mean, median, standard deviation, standard error, percentiles of the ordered frequency distribution.

[SOURCE: ISO 11074:2015, 3.5.11, modified — “selected” has replaced “chosen” and “standard error” has been added in the example.]

3.9
study area
 three-dimensional definition of the area where samples are to be obtained from and, thus, for which the background values (3.2) are to be determined

[SOURCE: ISO 11074:2015, 5.2.29]

3.10
variate
 set of observed values of a variable

EXAMPLE Series of numbers of the concentration of a substance in soil; numerous, individual soil samples.