SLOVENSKI STANDARD
SIST-TS CEN ISO/TS 21268-3:2010

01-februar-2010

Kakovost tal - Postopki izluževanja za nadaljnje kemijsko in ekotoksikološko preskušanje tal in talnih (zemeljskih) materialov - 3. del: Preskus v koloni s tokom navzgor (ISO/TS 21268-3:2007)

Soil quality - Leaching procedures for subsequent chemical and ecotoxicological testing of soil and soil materials - Part 3: Up-flow percolation test (ISO/TS 21268-3:2007)

Bodenbeschaffenheit - Eluierungsverfahren für die anschließende chemische und ökotoxikologische Untersuchung von Boden und von Bodenmaterialien - Teil 3: Perkolationstest im Aufwärtsstrom (ISO/TS 21268-3:2007)

Qualité du sol - Modes opératoires de lixiviation en vue d'essais chimiques et écotoxicologiques ultérieurs des sols et matériaux du sol - Partie 3: Essai de percolation à écoulement ascendant (ISO/TS 21268-3:2007)

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13.080.05	Preiskava tal na splošno	Examination of soils in general

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English Version

Soil quality - Leaching procedures for subsequent chemical and ecotoxicological testing of soil and soil materials - Part 3: Up-flow percolation test (ISO/TS 21268-3:2007)

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This Technical Specification (CEN/TS) was approved by CEN on 8 September 2009 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

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Foreword

The text of ISO/TS 21268-3:2007 has been prepared by Technical Committee ISO/TC 190 “Soil quality” of the International Organization for Standardization (ISO) and has been taken over as CEN ISO/TS 21268-3:2009 by Technical Committee CEN/TC 345 “Characterization of soils” the secretariat of which is held by NEN.

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Endorsement notice

The text of ISO/TS 21268-3:2007 has been approved by CEN as a CEN ISO/TS 21268-3:2009 without any modification.

TECHNICAL SPECIFICATION

ISO/TS 21268-3

First edition
2007-07-15

Soil quality — Leaching procedures for subsequent chemical and ecotoxicological testing of soil and soil materials

Part 3: Up-flow percolation test

Qualité du sol — Modes opératoires de lixiviation en vue d'essais chimiques et écotoxicologiques ultérieurs des sols et matériaux du sol

Partie 3: Essai de percolation à écoulement ascendant

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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.

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.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

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ISO/TS 21268-3 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 7, *Soil and site assessment*.

ISO/TS 21268 consists of the following parts, under the general title *Soil quality — Leaching procedures for subsequent chemical and ecotoxicological testing of soil and soil materials*:

— *Part 1: Batch test using a liquid to solid ratio of 2 l/kg dry matter*

— *Part 2: Batch test using a liquid to solid ratio of 10 l/kg dry matter*

— *Part 3: Up-flow percolation test*

— *Part 4: Influence of pH on leaching with initial acid/base addition*

Introduction

In various countries, tests have been developed to characterise and assess the constituents which can be released from materials. The release of soluble constituents upon contact with water is regarded as a main mechanism of release, which results in a potential risk to the environment during the use or disposal of materials. The intent of these tests is to identify the leaching properties of materials. The complexity of the leaching process makes simplifications necessary.

Not all of the relevant aspects of leaching behaviour can be addressed in one standard.

Tests to characterise the behaviour of materials can generally be divided into three categories (EN 12920; EN/TS 14405) and are addressed in ISO 18772 [13]. The relationships between these tests are summarised below:

a) “Basic characterisation” tests are used to obtain information on the short- and long-term leaching behaviour and characteristic properties of materials. Liquid/solid (L/S) ratios, leachant composition, factors controlling leachability, such as pH, redox potential, complexing capacity, role of dissolved organic carbon (DOC), ageing of material and physical parameters, are addressed in these tests.

b) “Compliance” tests are used to determine whether the material complies with a specific behaviour or with specific reference values. The tests focus on key variables and leaching behaviour previously identified by basic characterisation tests.

c) “On-site verification” tests are used as a rapid check to confirm that the material is the same as that which has been subjected to the compliance test(s). On-site verification tests are not necessarily leaching tests.

The test procedure described in this method belongs to category b): basic characterisation tests.

NOTE Up to now, the test procedure described in this part of ISO/TS 21268 has not been validated internationally.

This Technical Specification was elaborated on the basis of CEN/TS 14405.