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**Kakovost tal - Biološke metode - Določevanje mineralizacije dušika in nitrifikacije v tleh ter vpliv kemikalij na te procese (ISO 14238:2012)**

Soil quality - Biological methods - Determination of nitrogen mineralization and nitrification in soils and the influence of chemicals on these processes (ISO 14238:2012)

Bodenbeschaffenheit - Biologische Verfahren - Bestimmung der Stickstoffmineralisierung und -nitrifizierung in Böden und der Einflüsse von Chemikalien auf diese Prozesse (ISO 14238:2012)

Qualité du sol - Méthodes biologiques - Détermination de la minéralisation de l'azote et de la nitrification dans les sols, et de l'influence des produits chimiques sur ces processus (ISO 14238:2012)

**Ta slovenski standard je istoveten z: EN ISO 14238:2013**

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**ICS:**

13.080.10	Kemijske značilnosti tal	Chemical characteristics of soils
13.080.30	Biološke lastnosti tal	Biological properties of soils

**SIST EN ISO 14238:2014****en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 14238**

December 2013

ICS 13.080.30

English Version

**Soil quality - Biological methods - Determination of nitrogen mineralization and nitrification in soils and the influence of chemicals on these processes (ISO 14238:2012)**

Qualité du sol - Méthodes biologiques - Détermination de la minéralisation de l'azote et de la nitrification dans les sols, et de l'influence des produits chimiques sur ces processus (ISO 14238:2012)

Bodenbeschaffenheit - Biologische Verfahren - Bestimmung der Stickstoffmineralisierung und -nitrifizierung in Böden und der Einflüsse von Chemikalien auf diese Prozesse (ISO 14238:2012)

This European Standard was approved by CEN on 10 November 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.

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## Contents

Page

Foreword.....	3
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## Foreword

The text of ISO 14238:2012 has been prepared by Technical Committee ISO/TC 190 "Soil quality" of the International Organisation for Standardization (ISO) and has been taken over as EN ISO 14238:2013 by 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 June 2014, and conflicting national standards shall be withdrawn at the latest by June 2014.

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.

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The text of ISO 14238:2012 has been approved by CEN as EN ISO 14238:2013 without any modification.

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# INTERNATIONAL STANDARD

**ISO**  
**14238**

Second edition  
2012-08-01

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## **Soil quality — Biological methods — Determination of nitrogen mineralization and nitrification in soils and the influence of chemicals on these processes**

*Qualité du sol — Méthodes biologiques — Détermination de la  
minéralisation de l'azote et de la nitrification dans les sols, et de  
l'influence des produits chimiques sur ces processus*

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Reference number  
ISO 14238:2012(E)

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Published in Switzerland



# Contents

Page

Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Principle .....	2
5 Materials .....	2
5.1 Soils .....	2
5.2 Reagents and materials .....	3
5.3 Test substance .....	3
6 Apparatus .....	4
7 Procedures .....	4
7.1 Experimental options .....	4
7.2 Treatment of soils .....	4
7.3 Incubation of soils .....	5
7.4 Sampling of soils for testing .....	6
7.5 Extraction of soils .....	6
7.6 Analyses .....	6
8 Expression of results .....	6
8.1 Basic mineralization test .....	6
8.2 Toxicity testing .....	7
9 Test report .....	8
Annex A (informative) Determination of water-holding capacity of soil .....	10
Bibliography .....	12

## ISO 14238:2012(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 14238 was prepared by Technical Committee ISO/TC 190, *Soil quality*, Subcommittee SC 4, *Biological methods*.

This second edition cancels and replaces the first edition (ISO 14238:1997), which has been technically revised.

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## Introduction

Soil consists of both living and non-living components which exist in a complex and heterogeneous environment. Microorganisms in the soil are mainly responsible for cycling of some nutrients and thus play an essential role in the maintenance of soil fertility. One of the most important microbial processes in soil is the mineralization of nitrogen contained in organic forms to ammonium (ammonification) and thereafter to nitrite and nitrate (nitrification). Clearly, any long-term interference with this process could influence soil fertility.

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