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Soil quality - Determination of dry bulk density (ISO 11272:2017)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 09/17

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN ISO 11272

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Supersedes EN ISO 11272:2014

English Version

Soil quality - Determination of dry bulk density (ISO 11272:2017)

Qualité du sol - Détermination de la masse volumique apparente sèche (ISO 11272:2017)

Bodenbeschaffenheit - Bestimmung der Trockenrohdichte (ISO 11272:2017)

This European Standard was approved by CEN on 11 February 2017.

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European foreword

This document (EN ISO 11272:2017) has been prepared by Technical Committee ISO/TC 190 "Soil quality" in collaboration with Technical Committee CEN/TC 444 “Test methods for environmental characterization of solid matrices” 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of an identical text or by endorsement, at the latest by September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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Endorsement notice

The text of ISO 11272:2017 has been approved by CEN as EN ISO 11272:2017 without any modification.

INTERNATIONAL STANDARD

ISO 11272

Second edition
2017-03

Soil quality — Determination of dry bulk density

Qualité du sol — Détermination de la masse volumique apparente sèche

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Foreword

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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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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*, Subcommittee SC 3, *Chemical methods and soil characteristics*.

This second edition cancels and replaces the first edition (ISO 11272:1998), which has been technically revised.

Introduction

The dry bulk density is used together with the particle density (see ISO 11508) for the calculation of the solids content and porosity of soil for the evaluation of soil structure and conversion of concentrations of substances in soil from mass/volume to mass/mass and vice versa.

INTERNATIONAL STANDARD **ISO 11272:2017(E)**

Soil quality — Determination of dry bulk density

1 Scope

This document specifies three methods for the determination of dry bulk density of soils calculated from the mass and the volume of a soil sample. The methods involve drying and weighing a soil sample, the volume of which is either known [core method (see 4.1)] or determined [excavation method (see 4.2) and clod method (see 4.4)].

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.

ASTM D1556, *Standard test method for density and unit weight of soil in place by sand-cone method*

ASTM D2167, *Standard test method for density and unit weight of soil in place by the rubber balloon method*

ASTM D4914, *Standard test methods for density of soil and rock in place by the sand replacement method in a test pit*

ASTM D5030, *Standard test methods for density of soil and rock in place by the water replacement method in a test pit*

DIN 18125-2, *Soil investigation and testing — Determination of density of soil — Part 2: Field tests*