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Soil improvers and growing media - Determination of physical properties - Dry bulk density, air volume, water volume, shrinkage value and total pore space

EESTI STANDARDI EESSÕNA

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ICS 65.080

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English Version

Soil improvers and growing media - Determination of physical properties - Dry bulk density, air volume, water volume, shrinkage value and total pore space

Amendements du sol et supports de culture -
Détermination des propriétés physiques - Masse volumique
apparente sèche, volume d'air, volume d'eau, valeur de
rétraction et porosité totale

Bodenverbesserungsmittel und Kultursubstrate -
Bestimmung der physikalischen Eigenschaften - Rohdichte
(trocken), Luftkapazität, Wasserkapazität,
Schrumpfungswert und Gesamtporenvolumen

This European Standard was approved by CEN on 17 September 2011.

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Foreword

This document (EN 13041:2011) has been prepared by Technical Committee CEN/TC 223 “Soil improvers and growing media”, the secretariat of which is held by ASI.

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of an identical text or by endorsement, at the latest by May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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.

This document supersedes EN 13041:1999.

The main change to the previous edition is in the scope of this document.

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1 Scope

This European Standard describes an instrumental method for the routine determination of the physical properties, dry bulk density, water volume, air volume, shrinkage value and total pore space of soil improvers or growing media.

This European Standard is not suitable for those materials which are very coarse, which do not make proper capillary contact or those which are pre-formed and non-particulate and have closed porosity. It is applicable to materials with particles ≤ 25 mm and/or flexible fibres ≤ 80 mm.

This method is not applicable to liming materials and preformed materials such as mineral wool slabs and foam slabs.

NOTE The requirements of the standard may differ from the national legal requirements for the declaration of the products concerned.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 12579:1999, *Soil improvers and growing media — Sampling*

EN 13039, *Soil improvers and growing media — Determination of organic matter content and ash*

EN 13040:2007, *Soil improvers and growing media — Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory compacted bulk density*

3 Terms and definitions

For the purposes of this document the terms and definitions given in EN 12579:1999 and the following apply.

3.1
air volume
that part of the volume of a sample filled by air measured under the conditions specified in this European Standard, in particular at a defined suction (e.g. -10 cm water = -1 kPa suction)

3.2
dry bulk density
ratio of the dry mass and volume of the sample in grams per litre

3.3
total pore space
total volume of voids filled with water and/or air measured under the conditions specified in this European Standard, in particular at a defined suction (e.g. -10 cm water = -1 kPa suction)

3.4
shrinkage value
loss in volume of the sample after drying a moist sample

3.5
water volume
that part of the volume of a sample filled by water measured under the conditions specified in this European Standard, in particular at a defined suction (e.g. -10 cm water = -1 kPa suction)