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Soil improvers and growing media - Determination of a quantity

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. 01/23

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English Version

Soil improvers and growing media - Determination of a quantity

Amendements organiques et supports de culture -
Détermination de la quantitéBodenverbesserungsmittel und Kultursubstrate -
Bestimmung der Menge

This European Standard was approved by CEN on 5 July 2022.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

EN 12580:2022 (E)

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European foreword

This document (EN 12580:2022) has been prepared by Technical Committee CEN/TC 223 “Soil improvers and growing media”, 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of an identical text or by endorsement, at the latest by May 2023 and conflicting national standards shall be withdrawn at the latest by May 2023.

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 12580:2013.

In comparison with the previous edition, the following technical modifications have been made:

- the text has been editorially revised, no technical changes to the described method have been made;
- references in Clause 2 and the Bibliography have been updated;
- the terms and definitions have been aligned with CEN/TS 17732:2022;
- the figure has been replaced by two other figures with an example of the apparatus.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

EN 12580:2022 (E)**Introduction**

Soil improvers and growing media are generally traded by volume as the weight of the product can be greatly affected by the moisture content. It is important for both consumers and traders to know the volume of product being traded. Furthermore, for the cultivation of plants, it is the volume of the product, and not the weight, that is generally important. The volume is calculated from knowing the weight and bulk density of the product, the latter being determined from weighing a known reference volume of product. For those materials traded by reference to its mass, this document recognizes the effects the moisture content can have on the quantity declared. Therefore, the principle is that for such transactions any weight should be accompanied by the moisture content so that the solid matter content can be calculated.

As some soil improvers and growing media are compressible (and some might be presented in compressed blocks or bales), it is important that this aspect be addressed in the method of determining the bulk density. A suitably competent person should undertake this testing.

Even for materials traded by volume, the moisture content can have an effect as high moisture levels increase agglomerations, can reduce the ability to decompress or reconstitute materials, reduce their flow characteristics and give higher bulk densities and lower volumes.

NOTE Mass and weight are used interchangeably with the same meaning within this document.

The sampling of all materials prior to quantity determination is covered in EN 12579. The sample preparation is covered in EN 13040.

Quantity determination will be performed as soon as possible after preparation and sampling.

1 Scope

This document specifies methods for the determination of a quantity of soil improvers and growing media in bulk and in packages. This method is designed with an appropriate precision level so that it can be used to validate any quantity determination made.

This document is applicable to material in any form, reconstituted if necessary, but not to plugs, blocks and slabs sold as such by dimension; for these, see EN 15761.

This document is not applicable for material with more than 10 % (V/V) of particles greater than 60 mm in size; for these, see EN 15238.

The requirements of this document might differ from the national legal requirements for the determination of the products concerned.

Material which has become excessively wet and which cannot be easily broken down into a flowable material will not be suitable for the determination of quantity and might not give a representative result. However, because of the diverse nature and bulk density of these materials, it is not possible to quantify what is 'excessive'.

This document is intended to be used by manufacturers, buyers and enforcement agencies in verifying claims made for these products.

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.

CEN/TS 17732:2022, *Soil improvers and growing media - Terminology*

EN 12579:2013, *Soil improvers and growing media - Sampling*

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

EN 45501:2015, *Metrological aspects of non-automatic weighing instruments*

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