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Soil improvers and growing media - Determination of a quantity

Amendements organiques et supports de culture -
Détermination de la quantité

Bodenverbesserungsmittel und Kultursubstrate -
Bestimmung der Menge

This European Standard was approved by CEN on 31 August 2013.

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Foreword

This document (EN 12580:2013) 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of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.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.

This document supersedes EN 12580:1999.

The main changes are listed below:

- it reflects the provisions of EN 15238 and EN 15761;
- more detail is provided on how to carry out the density determination of the product;
- it includes a method to calibrate the measure.

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

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 recognises 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 may 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 apparent bulk densities and lower volumes.

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

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

1 Scope

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

This standard is applicable to material that is in solid form, reconstituted if necessary, but not to blocks sold as such by dimension; for these, see EN 15761. This method 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 standard may differ from the national legal requirements for the declaration of the products concerned.

Where there is no legal requirement to use this method, for example in quantity control of packaged product, then it is permissible for any other methods to be used so long as these other methods can be demonstrated to be comparable with this standard method in giving the same quantity with the same precision.

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 may 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 standard is intended to be used by manufacturers, buyers and enforcement agencies in verifying claims made for these products. It is not intended that it should necessarily be used for the purpose of manufacturing control.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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, *Metrological aspects of non-automatic weighing instruments*

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