

Soil improvers and growing media - Determination of quantity for materials with particle size greater than 60 mm

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 15238:2022 sisaldab Euroopa standardi EN 15238:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 15238:2022 consists of the English text of the European standard EN 15238:2022.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.11.2022.	Date of Availability of the European standard is 09.11.2022.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 65.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Soil improvers and growing media - Determination of
quantity for materials with particle size greater than 60
mm

Amendements du sol et supports de culture -
Détermination de la quantité pour les matériaux de
granulométrie supérieure à 60 mm

Bodenverbesserungsmittel und Kultursubstrate -
Bestimmung der Menge für Materialien mit einer
Partikelgröße über 60 mm

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

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents		Page
European foreword		3
Introduction		4
1	Scope.....	5
2	Normative references.....	5
3	Terms and definitions	5
4	Principle	6
5	Apparatus	6
6	Calibration of the measuring cylinder	7
7	Sampling.....	9
8	Determination of bulk density	9
9	Calculation and expression of results.....	12
10	Determination of quantity by weight	12
11	Precision	13
12	Test report.....	13
Annex A (informative) Results of an interlaboratory trial to determine bulk density.....		14
Bibliography.....		15

European foreword

This document (EN 15238:2022) 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 15238:2006.

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.

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.

NOTE In this document, mass and weight are used interchangeably with the same meaning.

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. As some soil improvers and growing media are compressible it is important that this aspect be addressed in the method of determining the bulk density. A suitably competent person should undertake this testing.

For those materials traded by reference to its mass, this document recognizes the effects the moisture content can have on the quantity declared. Therefore, for such transactions, any weight is accompanied by the moisture content so that the solid matter content can be calculated.

1 Scope

This document specifies a method for the determination of 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 applies to material that is in solid form, but not in block form to be sold by dimension, and which exceeds the particle size restriction in EN 12580 and where the declared nominal particle size is greater than 60 mm.

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*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 17732:2022 and the following apply.

3.1

batch

lot

quantity of goods manufactured by the same process under the same conditions, at the same time, and labelled in the same manner and are assumed to have the same characteristics to be sampled using a particular sampling plan

3.2

bulk material

material that is not packaged

3.3

container

receptacle or vessel in which material is delivered, including a lorry, ship, boat and packaging

3.4

ρ_b

bulk density

indication of how much 1 l of the product weighs, being determined in a standardized way

Note 1 to entry: The bulk density is expressed in grams per litre (g/l) or in kilograms per cubic metre (kg/m³).

Note 2 to entry: 'Bulk density' in this document refers to the apparent density in air (based on conventional mass) and not the density in vacuum.