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Interested committees:

Title: BS EN 13040-1 Draft Soil improvers and growing media - Sample preparation. Part 1: Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory bulk density.

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- iii) requires additional national guidance or information

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	

English Version

Soil improvers and growing media - Sample preparation -
Part 1: Sample preparation for chemical and physical tests,
determination of dry matter content, moisture content and
laboratory bulk density

Amendements du sol et supports de culture -
Préparation des échantillons - Partie 1 : Préparation
des échantillons pour les essais chimiques et
physiques, détermination de la teneur en matière
sèche, du taux d'humidité et de la masse volumique
apparente en laboratoire

Bodenverbesserungsmittel und Kultursubstrate -
Probenvorbereitung - Teil 1: Probenvorbereitung für
chemische und physikalische Untersuchungen,
Bestimmung des Trockensubstanzgehalts, des
Feuchtigkeitsgehalts und der Laborschüttdichte

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 223.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

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European foreword

This document (prEN 13040-1:2025) has been prepared by Technical Committee CEN/TC 223 “Soil improvers and growing media”, the secretariat of which is held by NEN.

This document is currently submitted to CEN Enquiry.

This document will supersede EN 13040:2007.

prEN 13040-1:2025 includes the following significant technical changes with respect to EN 13040:2007:

- The title has been changed;
- Clause 7 (Transportation and storage of samples) has been completed;
- Clause 8 (Classification of samples as function of matrix) has been introduced;
- In Clause 9 (Preparation of the un-dried laboratory sample) new types of test samples have been added;
- Clause 10 (Preparation of the dried ground (or otherwise size reduced) test samples) has been updated;
- In Clause 11 (Determination of dry matter content) new types of test samples included the dried ground sample for the residual moisture content determination, have been added;
- Annex A has been completed considering different procedures to determine laboratory bulk density depending on the classification of samples as function of matrix (Clause 8);
- Formula (A.1) and A.2 have been modified.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

1 Scope

This document specifies a routine method for preparing a sample of organic soil improver, inorganic soil improver, growing medium, compost or digestate prior to chemical analysis and physical testing. The procedures described herein apply only to those samples that are supplied to a laboratory in the form in which they will be used for their intended purpose and to samples with a manufacturer's guidance for reconstitution.

NOTE 1 The determination of the laboratory bulk density is given in Annex A.

NOTE 2 The results of an interlaboratory trial to determine moisture content are given in Annex B.

NOTE 3 The results of an interlaboratory trial to determine laboratory bulk density are given in Annex B.

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 12579:2024, *Soil improvers and growing media — Sampling*

EN 12580:2022, *Soil improvers and growing media — Determination of a quantity*

prEN 15761:2022, *Pre-shaped growing media — Determination of the dimensions measured and bulk density*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12579:2024, CEN/TS 17732:2022 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

test sample

sample prepared from the laboratory sample and from which test portions will be taken

3.2

test portion

quantity of material drawn from the test sample (or from the laboratory sample if both are the same) and on which the tests or observations are actually carried out

3.3

laboratory compacted bulk density

density, expressed in grams per litre of the material as determined in the laboratory using a cylinder of known volume; the sample being compacted under defined conditions

4 Principle

The laboratory sample is coded and sub-divided to prepare the test sample in such a manner as to be representative of the sample as submitted to the laboratory. Dry matter and humidity content are determined by oven drying and laboratory bulk density is determined by weighting a known volume of the material.

5 Sampling

Sampling is not part of the method specified in this document. Follow EN 12579:2024 dealing with soil improvers and growing media. It is important that the laboratory receives a sample that is representative of the product under consideration. The sample should not have been damaged or changed during transport or storage.

6 Sample reception

Upon receipt of the laboratory sample, the laboratory shall confirm that the sample relates to the accompanying documentation. The sampler shall submit with the sample, at least the following minimum requirements:

- a) name of the client;
- b) to whom the results shall be reported, if different from a);
- c) place and date the sample was taken;
- d) name of the sampler;
- e) discrete sample identification;
- f) analysis required.

The laboratory shall confirm that a sufficient sample has been provided for the analyses to be undertaken by recording the date the sample was received and giving the sample a unique laboratory identification code. This code shall be recorded on all subsequent sub sample containers and on the documentation supplied with the sample.

7 Transportation and storage of samples

The laboratory sample shall be transported and stored without compaction or any other treatment which may irreversibly alter its moisture content, particle size, packing characteristics or any feature which affects density.

A sample, as submitted to the laboratory shall be stored so that it shall not undergo any further decomposition, physical damage, hydration or dehydration. Recommended storage should be at $3\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$, in a closed polyethylene bag so that the sample fills volume of the container completely. The storage period depends on several factors including what is the normal custom in the analysing laboratory or country. Analysis of fresh materials shall be undertaken within 2 weeks of receipt of the sample. When transport takes place, the sampling plan shall consider:

- a) the time between sampling and start of transport;
- b) transport time;
- c) starting time of analysis in the laboratory.