

STN	Kaly, upravené bioodpady a zemina. Stanovenie nečistôt a kameňov.	STN P CEN/TS 16202 83 8410
------------	--------------------------------------------------------------------------	----------------------------------------------

Sludge, treated biowaste and soil - Determination of impurities and stones

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. 12/13

Obsahuje: CEN/TS 16202:2013

ICS 13.030.20; 13.080.30

English Version

Sludge, treated biowaste and soil - Determination of impurities and stones

Boue, biodéchet traité et sol - Détermination des matières étrangères et pierres

Schlamm, behandelter Bioabfall und Boden - Bestimmung von Fremdstoffen und Steinen

This Technical Specification (CEN/TS) was approved by CEN on 5 March 2011 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

Foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Principle.....	6
5 Reagents.....	6
6 Apparatus	6
7 Procedure	7
7.1 Sample preparation.....	7
7.1.1 Large objects.....	7
7.1.2 Amount of laboratory sample.....	7
7.1.3 Drying	7
7.1.4 Weighing.....	7
7.1.5 Dry sieving.....	7
7.2 Direct analysis without washing.....	8
7.3 Analysis using water and/or bleach washing	8
7.3.1 General	8
7.3.2 Water washing.....	8
7.3.3 Bleach washing.....	8
7.3.4 Drying	9
7.4 Sieve analysis	9
7.4.1 Sieving and sorting stone > 5 mm.....	9
7.4.2 Sieving > 2 mm (optional)	9
7.5 Sorting > 2 mm	9
8 Calculations and expression of results.....	10
9 Precision data	10
10 Test report	11
Annex A (informative) Image analysis for the estimation of area covered by plastics particles > 2 mm	12
Annex B (informative) Repeatability and reproducibility data.....	13
B.1 Materials used in the interlaboratory comparison study.....	13
B.2 Validation study results	13
Bibliography.....	15

Foreword

This document (CEN/TS 16202:2013) has been prepared by Technical Committee CEN/TC 400 "Project Committee - Horizontal standards in the field of sludge, biowaste and soil", the secretariat of which is held by DIN.

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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This Technical Specification is part of a modular horizontal approach in which this document belongs to the analytical step.

The preparation of this document by CEN is based on a mandate by the European Commission (Mandate M/330), which assigned the development of standards on sampling and analytical methods for hygienic and biological parameters as well as inorganic and organic determinants, aiming to make these standards applicable to sludge, treated biowaste and soil as far as this is technically feasible.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to announce this Technical Specification: 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

This Technical Specification is applicable for several types of matrices as indicated below (see also Annex B for the results of the validation).

Table 1 — Matrices for which this Technical Specification is applicable and validated

Matrix	Materials used for validation
Sludge	Sewage sludge
Compost	Horticultural green compost
	Mixture of municipal and green compost (1:1)
Soil	Sandy soil with some organic matter

WARNING — Care is to be taken when handling samples, since they may contain sharp fragments, chemical contaminants or possible pathogenic organisms. When using bleach, care is to be taken to avoid inhaling fumes containing Cl₂.

1 Scope

This Technical Specification specifies a method to determine the physical impurities > 2 mm and stones > 5 mm in sludge, treated biowaste and soil.

Fragments of wood or bark can be acceptable constituents of the sample.

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

CR 13456:1999, *Soil improvers and growing media — Labelling, specifications and product schedules*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN