

Characterization of sludges - Laboratory chemical  
conditioning procedure

## EESTI STANDARDI EESSÕNA

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English Version

## Characterization of sludges - Laboratory chemical conditioning procedure

Caractérisation des boues - Mode opératoire de  
conditionnement chimique en laboratoire

Charakterisierung von Schlämmen - Laborverfahren zur  
chemischen Konditionierung

This European Standard was approved by CEN on 28 February 2015.

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## Foreword

This document (EN 14742:2015) has been prepared by Technical Committee CEN/TC 308 "Characterization of sludges", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.

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 CEN/TR 14742:2006.

The main changes with respect to CEN/TR 14742 are listed below:

- a) normative references have been updated;
- b) terms and definitions have been updated;
- c) principle has been updated and supplemented with notes on conditioning agents;
- d) procedure has been updated;
- e) figures have been updated.

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, 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 method gives a standardized procedure for the conditioning operation when selecting a conditioning product at laboratory scale and also for the production of flocculated thickened sludge for subsequent dewatering tests.

These tests may also provide details regarding energy requirements, provided information on stirring power is available.

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## 1 Scope

The laboratory assessment of sludge dewaterability is sensitive to the operating procedure adopted for the conditioning step. No generalized ranking of products in order of effectiveness can be given since the ranking changes with the sludge type, dosage of conditioning agent, degree of shearing and dewatering device.

The scope of this European Standard applies for sludges and suspensions from:

- storm water handling;
- urban wastewater collecting systems;
- urban wastewater treatment plants;
- industrial wastewater that has been treated similarly to urban wastewater (as defined in Directive 91/271/EEC);
- water supply plants.

This method is applicable to sludge and suspensions of other origin.

## 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 12832, *Characterization of sludges — Utilization and disposal of sludges — Vocabulary*

EN 12880, *Characterization of sludges — Determination of dry residue and water content*

EN 14701-4, *Characterization of sludges — Filtration properties — Part 4: Determination of the drainability of flocculated sludges*

EN 15933, *Sludge, treated biowaste and soil — Determination of pH*

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12832 and the following apply.

### 3.1

#### **chemical conditioning**

mixing of a chemical product with the sludge in order to increase its thickenability/dewaterability

## 4 Principle

Sludge conditioned in accordance with this procedure (Clause 6) can subsequently be used in specific characterization tests in order to determine the most suitable operating conditions for each particular sludge or suspension; these tests determine particularly the required nature of the reagent, the dosage, and the sequence of adding the reagent.

Each test is performed as a batch process.