

Odpady Skúšobné metódy na určovanie monolitického stavu odpadu na skládku

STN P CEN/TS 16675

83 8207

Waste - Test methods for the determination of the monolithic status of waste to be landfilled

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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English Version

Waste - Test methods for the determination of the monolithic status of waste to be landfilled

Caractérisation des déchets - Méthodes d'essai pour la détermination du statut monolithique d'un déchet

Abfälle - Prüfverfahren für die Bestimmung der monolithischen Eigenschaften von Abfällen zur Deponierung

This Technical Specification (CEN/TS) was approved by CEN on 7 May 2018 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.

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CEN/TS 16675:2018 (E)

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European foreword

This document (CEN/TS 16675:2018) has been prepared by Technical Committee CEN/TC 444 "Test methods for environmental characterization of solid matrices", the secretariat of which is held by NEN.

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This document supersedes CEN/TS 16675:2014.

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Introduction

Landfilling of some types of waste requires stabilization/solidification to reduce the impact and/or comply with regulatory requirements. The characterization of waste is an essential step for the assessment of a potential final destination, especially in case of landfilling and associated potential hazards. Based on its properties, a stabilized/solidified waste material may be allocated to a landfill for granular waste or a landfill for monolithic waste. Information on certain physical properties of a given stabilized/solidified waste material is required to determine if it can be classified as a monolithic material and to select appropriate leaching test method(s) and landfilling options for that waste. This technical specification describes test methods applicable to assessment of these physical properties.

WARNING – Anyone dealing with waste and sludge analysis should be aware of the typical risks of that kind of material irrespective of the parameter to be determined. Waste and sludge samples may contain hazardous (e.g. toxic, reactive, flammable, infectious) substances, which can be liable to biological and/or chemical reaction. Consequently these samples should be handled with special care. Gases which may be produced by microbiological or chemical activity are potentially flammable and will pressurize sealed bottles. Bursting bottles are likely to result in hazardous shrapnel, dust and/or aerosol. National regulations should be followed with respect to all hazards associated with the methods in this technical specification.

1 Scope

This document provides methods, which can be used to assess the monolithic character of a stabilized/solidified waste, with respect to landfilling. Information on the monolithic character is required to enable the choice of appropriate leaching tests for determination of the release of different substances from stabilized/solidified waste under specified (landfilling) conditions.

This document includes several physical and/or chemical test methods each addressing different aspects of monolithic character. The selection of methods required for an assessment of the monolithic character of a stabilized/solidified waste may vary, depending on the scenario to be addressed or it can be specified in regulation.

Rather than describing the procedures and methods in detail this document refers to existing standards and provides some guidance on their use on stabilized/solidified waste materials.

This document does not address issues related to health and safety.

The following procedures and methods are included in this document:

- test to determine unconfined compressive strength;
- test to determine permeability;
- test to determine the loss of mass by dissolution;
- test to determine expansion;
- test to determine the content of organic matter;
- test to determine freeze/thaw effects.

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.

EN 12390-3, Testing hardened concrete - Part 3: Compressive strength of test specimens

EN 15002, Characterization of waste - Preparation of test portions from the laboratory sample

EN 15216, Characterization of waste - Determination of total dissolved solids (TDS) in water and eluates

CEN/TR 15177:2006, Testing the freeze-thaw resistance of concrete - Internal structural damage

EN 15863, Characterization of waste - Leaching behaviour test for basic characterization - Dynamic monolithic leaching test with periodic leachant renewal, under fixed conditions

CEN/TS 15864, Characterization of waste - Leaching behaviour test for basic characterization - Dynamic monolithic leaching test with continuous leachant renewal under conditions relevant for specified scenario(s)

EN 15936, Sludge, treated biowaste, soil and waste - Determination of total organic carbon (TOC) by dry combustion

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CEN ISO/TS 17892-11, Geotechnical investigation and testing - Laboratory testing of soil - Part 11: Determination of permeability by constant and falling head (ISO/TS 17892-11)

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