

Plastics - Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratoryscale test

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 20200:2005 sisaldab Euroopa standardi EN ISO 20200:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 29.09.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 20200:2005 consists of the English text of the European standard EN ISO 20200:2005.</p> <p>This document is endorsed on 29.09.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This International Standard specifies a method of determining the degree of disintegration of plastic materials when exposed to a laboratory-scale composting environment.</p>	<p>Scope: This International Standard specifies a method of determining the degree of disintegration of plastic materials when exposed to a laboratory-scale composting environment.</p>
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ICS 83.080.01

Võtmesõnad:

English Version

Plastics - Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratory-scale test (ISO 20200:2004)

Plastiques - Détermination du degré de désintégration de matériaux plastiques dans des conditions de compostage simulées lors d'un essai de laboratoire (ISO 20200:2004)

Kunststoffe - Bestimmung des Zersetzungsgrades von Kunststoffmaterialien unter nachgebildeten Kompostierungsbedingungen mittels einer Prüfung im Labormaßstab (ISO 20200:2004)

This European Standard was approved by CEN on 7 July 2005.

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Foreword

The text of ISO 20200:2004 has been prepared by Technical Committee ISO/TC 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 20200:2005 by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by IBN.

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 January 2006, and conflicting national standards shall be withdrawn at the latest by January 2006.

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Endorsement notice

The text of ISO 20200:2004 has been approved by CEN as EN ISO 20200:2005 without any modifications.

**Plastics — Determination of the degree of
disintegration of plastic materials under
simulated composting conditions in a
laboratory-scale test**

*Plastiques — Évaluation du degré de désintégration de matériaux
plastiques dans des conditions de compostage simulées lors d'un essai
de laboratoire*



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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 20200 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*.

Introduction

The test method described in this International Standard determines the degree of disintegration of plastic materials when exposed to a composting environment. The method is simple and inexpensive, does not require special bioreactors and is scaled for use in any general-purpose laboratory. It requires the use of a standard and homogeneous synthetic solid waste. The synthetic waste components are dry, clean, safe products which can be stored in the laboratory without any odour or health problems. The synthetic waste is of constant composition and devoid of any undesired plastic material which could be erroneously identified as test material at the end of testing, altering the final evaluation. The bioreactors are small, as is the amount of synthetic waste to be composted (approximately 3 l). With the limited amount of test material, this method provides a simplified test procedure. This test method is not aimed at determining the biodegradability of plastic materials under composting conditions. Further testing will be necessary before being able to claim compostability.

Plastics — Determination of the degree of disintegration of plastic materials under simulated composting conditions in a laboratory-scale test

1 Scope

This International Standard specifies a method of determining the degree of disintegration of plastic materials when exposed to a laboratory-scale composting environment. The method is not applicable to the determination of the biodegradability of plastic materials under composting conditions. Further testing is necessary to be able to claim compostability.

2 Normative references

The following referenced documents are indispensable for the application 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.

ISO 3310-1:2000, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

compost

organic soil conditioner obtained by biodegradation of a mixture consisting principally of vegetable residues, occasionally with other organic material and having a limited mineral content

3.2

compostability

ability of a material to be biodegraded in a composting process

NOTE To claim compostability it must have been demonstrated that a material can be biodegraded and disintegrated in a composting system (as can be shown by standard test methods) and completes its biodegradation during the end-use of the compost. The compost must meet the relevant quality criteria. Quality criteria are e.g. low heavy-metal content, no ecotoxicity, no obviously distinguishable residues.

3.3

composting

aerobic process designed to produce compost

3.4

disintegration

physical breakdown of a material into very small fragments