SLOVENSKI STANDARD
SIST EN ISO 17556:2019

01-september-2019

Nadomešča:
SIST EN ISO 17556:2012

Polimerni materiali - Ugotavljanje končne aerobne biorazgradljivosti polimernih materialov v zemlji z merjenjem porabe kisika v respirometru ali količine nastalega ogljikovega dioksida (ISO 17556:2019)

Plastics - Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved (ISO 17556:2019)

Kunststoffe - Bestimmung der vollständigen aeroben Bioabbaubarkeit von Kunststoffmaterialien im Boden durch Messung des Sauerstoffbedarfs in einem Respirometer oder der Menge des entstandenen Kohlendioxids (ISO 17556:2019)

Plastiques - Détermination de la biodégradabilité aérobie ultime des matériaux plastiques dans le sol par mesure de la demande en oxygène dans un respiromètre ou de la teneur en dioxyde de carbone libéré (ISO 17556:2019)

Ta slovenski standard je istoveten z: **EN ISO 17556:2019**

ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general

SIST EN ISO 17556:2019 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 17556

May 2019

ICS 83.080.01

Supersedes EN ISO 17556:2012

English Version

Plastics - Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved (ISO 17556:2019)

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This European Standard was approved by CEN on 17 August 2018.

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This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN ISO 17556:2019 E

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European foreword

This document (EN ISO 17556:2019) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 “Plastics” the secretariat of which is held by NBN.

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 November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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

This document supersedes EN ISO 17556:2012.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 17556:2019 has been approved by CEN as EN ISO 17556:2019 without any modification.

INTERNATIONAL STANDARD

ISO 17556

Third edition
2019-05

Plastics — Determination of the ultimate aerobic biodegradability of plastic materials in soil by measuring the oxygen demand in a respirometer or the amount of carbon dioxide evolved

Plastiques — Détermination de la biodégradabilité aérobie ultime des matériaux plastiques dans le sol par mesure de la demande en oxygène dans un respiromètre ou de la teneur en dioxyde de carbone libéré

Reference number
ISO 17556:2019(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 14, *Environmental aspects*.

This third edition cancels and replaces the second edition (ISO 17556:2012), which has been technically revised. The main changes compared to the previous edition are as follows:

a) the unit for BOD, COD and DIC has been corrected (see Clause 3);

b) the formula for calculating the percent biodegradation has been modified (see 9.1.1);

c) the test period has been revised to two years at the longest (see Clause 4);

d) the number of replicates has been corrected to three (see 9.2).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

A number of plastic materials and products have been designed for applications ending up in or on soil. They have been developed for applications where biodegradation is beneficial from a technical, environmental, social or economic standpoint. Examples can be found in agriculture (e.g. mulching film), horticulture (e.g. twines and clips, flower pots, pins), funeral items (e.g. body bags), recreation (e.g. plastic "clay" pigeons for shooting, hunting cartridges), etc. In many cases, recovery and/or recycling of these plastic items is either difficult or not economically viable. Various types of biodegradable plastics have been developed which have been designed to biodegrade and disappear in situ at the end of their useful life. Several International Standards specify test methods for determining the ultimate aerobic or anaerobic biodegradation of plastic materials in aqueous or compost conditions. Considering the use and disposal of biodegradable plastics, it is important to establish a test method to determine the ultimate aerobic biodegradation of such plastic materials in soil.