

SLOVENSKI STANDARD SIST EN ISO 16929:2021

01-junij-2021

Nadomešča:

SIST EN ISO 16929:2020

Polimerni materiali - Ugotavljanje stopnje razpada polimernih materialov pri določenih pogojih kompostiranja v pilotnem merilu (ISO 16929:2021)

Plastics - Determination of the degree of disintegration of plastic materials under defined composting conditions in a pilot-scale test (ISO 16929:2021)

Kunststoffe - Bestimmung des Zersetzungsgrades von Kunststoffmaterialien unter festgelegten Bedingungen der Kompostierung mittels einer Technikumsmaßstab-Prüfung (ISO 16929:2021) (Standards.iteh.ai)

Plastiques - Détermination du degré de désintégration des matériaux plastiques dans des conditions de compostage définies lors d'un essai à échelle pilote (ISO 16929:2021)

Ta slovenski standard je istoveten z: EN ISO 16929:2021

ICS:

83.080.01 Polimerni materiali na

splošno

Plastics in general

SIST EN ISO 16929:2021

en,fr,de

SIST EN ISO 16929:2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 16929;2021

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 16929

March 2021

ICS 83.080.01

Supersedes EN ISO 16929:2019

English Version

Plastics - Determination of the degree of disintegration of plastic materials under defined composting conditions in a pilot-scale test (ISO 16929:2021)

Plastiques - Détermination du degré de désintégration des matériaux plastiques dans des conditions de compostage définies lors d'un essai à échelle pilote (ISO 16929:2021)

Kunststoffe - Bestimmung des Zersetzungsgrades von Kunststoffmaterialien unter festgelegten Bedingungen der Kompostierung mittels einer Technikumsmaßstab-Prüfung (ISO 16929:2021)

This European Standard was approved by CEN on 13 March 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, 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: Rue de la Science 23, B-1040 Brussels

EN ISO 16929:2021 (E)

Contents	Page
European foreword	3

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 16929:2021</u> https://standards.iteh.ai/catalog/standards/sist/9e7762a3-a015-452b-a2e7-d302162548f8/sist-en-iso-16929-2021

EN ISO 16929:2021 (E)

European foreword

This document (EN ISO 16929:2021) 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 September 2021, and conflicting national standards shall be withdrawn at the latest by September 2021.

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 16929:2019.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 16929:2021 has been approved by CEN as EN ISO 16929:2021 without any modification.

SIST EN ISO 16929:2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 16929;2021

SIST EN ISO 16929:2021

INTERNATIONAL STANDARD

ISO 16929

Fourth edition 2021-03

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

Plastiques — Détermination du degré de désintégration des matériaux plastiques dans des conditions de compostage définies lors

iTeh STd/un essai à échelle pilote EVIEW

(standards.iteh.ai)



iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 16929:2021 https://standards.iteh.ai/catalog/standards/sist/9e7762a3-a015-452b-a2e7-d302162548f8/sist-en-iso-16929-2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

CO	Lontents		
Fore	eword		iv
Introduction			v
1	Scop	oe	1
2	Norr	1	
3		ns and definitions	
4	Prin	ciple	2
5		aratus	
6	Test	Test procedure	
	6.1	Actions before and during incubation	
		6.1.1 Start-up of the test	4 5
		6.1.3 Termination of the test	
	6.2	Analysis and process control	
		6.2.1 Start-up of the test	6
		6.2.2 During the test	
		6.2.3 Termination of the test	
7	Calc	ulation	9
8	Valid	dity of the tests h STANDARD PREVIEW	9
9		report (standards.iteh.ai)	
Rihl	liograni	(Stanuarus.Hen.ar)	11

SIST EN ISO 16929:2021

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

For an explanation of 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 www.iso.org/iso/foreword.html. (Standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 14, *Environmental aspects*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement). 2162548/8/sist-en-iso-16929-2021

This fourth edition cancels and replaces the third edition (ISO 16929:2019), which has been technically revised.

The main changes compared to the previous edition are as follows:

- in <u>6.1.1</u>, the minimum amount of biowaste has been changed to 15 kg from 30 kg due to the smaller size of composting bins;
- in <u>6.2.2.3</u>, a separate temperature profile has been added to cover tests including also production of compost for ecotoxicity tests.

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

The biological treatment of biodegradable plastic materials includes aerobic composting in well-operated, municipal or industrial biological waste treatment facilities. Determining the degree of disintegration of plastic materials in a pilot-scale plant is an important step within a test scheme to evaluate the industrial compostability of such materials.

To claim industrial compostability, a material not only has to disintegrate in a composting system, it also has to biodegrade in a composting system (as can be shown by standard test methods) and has to complete its biodegradation during the end-use of the compost. Furthermore, the compost has to meet the relevant quality criteria, including low content of regulated metals, no ecotoxicity, and no obviously distinguishable residues.

iTeh STANDARD PREVIEW (standards.iteh.ai)