SLOVENSKI STANDARD
SIST EN ISO 19679:2018

01-februar-2018

Polimerni materiali - Ugotavljanje aerobne biodegradacije neplavajočih plastičnih materialov v vmesnem predelu med morsko vodo in peščenim sedimentom - Metoda z analizo sproščenega ogljikovega dioksida (ISO 19679:2016)

Plastics - Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface - Method by analysis of evolved carbon dioxide (ISO 19679:2016)

Kunststoffe - Bestimmung der aeroben biologischen Abbaubarkeit von nicht-schwimmenden Kunststoffmaterialien in einer Meerwasser/Sediment-Schnittstelle - Prüfverfahren mittels Analyse des freigesetzten Kohlenstoffdioxids (ISO 19679:2016)

Plastiques - Détermination de la biodégradation aérobie des matières plastiques non-flottantes à l'interface eau de mer/sédiments - Méthode par analyse du dioxyde de carbone libéré (ISO 19679:2016)

Ta slovenski standard je istoveten z: EN ISO 19679:2017

ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

EN ISO 19679

December 2017

ICS 83.080.01

English Version

Plastics - Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface - Method by analysis of evolved carbon dioxide (ISO 19679:2016)

Plastiques - Détermination de la biodégradation aérobie des matières plastiques non-flottantes à l'interface eau de mer/sédiments - Méthode par analyse du dioxyde de carbone libéré (ISO 19679:2016)

Kunststoffe - Bestimmung des aeroben Bioabbaus von nicht-schwimmenden Kunststoffmaterialien in einer Meerwasser/Sediment-Schnittstelle - Prüfverfahren mittels Analyse des freigesetzten Kohlenstoffdioxids (ISO 19679:2016)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

The text of ISO 19679:2016 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 19679:2017 by 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 June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

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Endorsement notice

The text of ISO 19679:2016 has been approved by CEN as EN ISO 19679:2017 without any modification.

INTERNATIONAL STANDARD

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Plastics — Determination of aerobic biodegradation of non-floating plastic materials in a seawater/sediment interface — Method by analysis of evolved carbon dioxide

Plastiques — Détermination de la biodégradation aérobie des matières plastiques non-flottantes à l'interface eau de mer/sédiments — Méthode par analyse du dioxyde de carbone libéré

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Foreword

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The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 5, *Physical-chemical properties*.

Introduction

Products made with biodegradable plastics are designed to be recovered by means of organic recycling in composting plants or in anaerobic digesters. The uncontrolled dispersion of biodegradable plastics in natural environments is not desirable. The biodegradability of products cannot be considered as an excuse to spread wastes that should be recovered and recycled. However, test methods to measure rate and level of biodegradation in natural environments (such as soil or the marine environment) are of interest in order to better characterize the behaviour of plastics in these very particular environments. As a matter of fact, some plastics are used in products that are applied in the sea (e.g. fishing gear) and sometimes they can get lost or put willingly in marine environment. The characterization of biodegradable plastic materials can be enlarged by applying specific test methods that enable the quantitative assessment of biodegradation of plastics exposed to marine sediment and seawater. Plastic products are directly littered or arrive with fresh waters in the pelagic zone (free water). From there, and depending on density, tides, currents, and marine fouling plastics may sink to the sublittoral, and reach the seafloor surface. Many biodegradable plastics have a density higher than 1 and therefore tend to sink. The sediment passes from aerobic to anoxic and finally anaerobic conditions going from the surface (the interface with seawater) into deeper layers, displaying a very steep oxygen gradient.

