SLOVENSKI STANDARD
SIST EN ISO 16994:2016

01-oktober-2016

Nadomešča:
SIST EN ISO 16994:2015

Trdna biogoriva - Določevanje celotnega žvepla in klora (ISO 16994:2016)

Solid biofuels - Determination of total content of sulfur and chlorine (ISO 16994:2016)

Biogene Festbrennstoffe - Bestimmung des Gesamtgehaltes an Schwefel und Chlor (ISO 16994:2016)

Biocombustibles solides - Détermination de la teneur totale en soufre et en chlore (ISO 16994:2016)

Ta slovenski standard je istoveten z: EN ISO 16994:2016

ICS:

75.160.40	Biogoriva	Biofuels

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 16994

August 2016

ICS 75.160.10; 27.190

Supersedes EN ISO 16994:2015

English Version

Solid biofuels - Determination of total content of sulfur and chlorine (ISO 16994:2016)

Biocombustibles solides - Détermination de la teneur totale en soufre et en chlore (ISO 16994:2016)

Biogene Festbrennstoffe - Bestimmung des Gesamtgehaltes an Schwefel und Chlor (ISO 16994:2016)

This European Standard was approved by CEN on 27 July 2016.

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

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European foreword

This document (EN ISO 16994:2016) has been prepared by Technical Committee ISO/TC 238 "Solid biofuels" in collaboration with Technical Committee CEN/TC 335 “Solid biofuels” the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

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

This document supersedes EN ISO 16994:2015.

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Endorsement notice

The text of ISO 16994:2016 has been approved by CEN as EN ISO 16994:2016 without any modification.

INTERNATIONAL STANDARD

ISO 16994

Second edition
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Solid biofuels — Determination of total content of sulfur and chlorine

Biocombustibles solides — Détermination de la teneur totale en soufre et en chlore

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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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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information.

The committee responsible for this document is ISO/TC 238, *Solid biofuels*.

This second edition cancels and replaces the first edition (ISO 16994:2015), of which it constitutes a minor revision.

Introduction

Sulfur and chlorine are present in solid biofuels in varying concentrations. During the combustion process, they are usually converted to sulfur-oxides and chlorides. The presence of these elements and their reaction products can contribute significantly to corrosion and to environmentally harmful emissions.

Chlorine can be present in different organic and inorganic compounds and is to exceed or equal the water soluble amount that can be determined by ISO 16995.

Combustion in an oxygen atmosphere in a closed combustion vessel is the preferred method to digest biomass samples for a determination of the total content of sulfur and chlorine. An advantage of the method is that the digestion can be carried out in connection with the determination of the calorific value according to ISO 18125[1)]. Decomposition in closed vessels is an appropriate alternative method. Other analytical techniques (e.g. high-temperature combustion in a tube furnace and Eschka method) may also be used. The determination of the resultant chlorine and sulfur compounds can be done by different techniques, e.g. ion chromatography, ICP, titrimetry.

Automatic equipment and alternative methods may be used when these methods are validated with biomass reference samples of an adequate type and also meet the requirements of Clause 10.

A list with typical sulfur and chlorine contents of solid biofuels can be found in ISO 17225-1:2014, Annex B.

1) To be published.