

# SLOVENSKI STANDARD

## SIST EN ISO 16967:2015

01-julij-2015

Nadomešča:  
SIST EN 15290:2011

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**Trdna biogoriva - Določevanje makro elementov - Al, Ca, Fe, Mg, P, K, Si, Na in Ti (ISO 16967:2015)**

Solid biofuels - Determination of major elements - Al, Ca, Fe, Mg, P, K, Si, Na and Ti (ISO 16967:2015)

Biogene Festbrennstoffe - Bestimmung von Hauptelementen - Al, Ca, Fe, Mg, P, K, Si, Na und Ti (ISO 16967:2015)

Biocombustibles solides - Détermination des éléments majeurs - Al, Ca, Fe, Mg, P, K, Si, Na et Ti (ISO 16967:2015)

**Ta slovenski standard je istoveten z: EN ISO 16967:2015**

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**ICS:**

27.190	Biološki viri in drugi alternativni viri energije	Biological sources and alternative sources of energy
75.160.10	Trda goriva	Solid fuels

**SIST EN ISO 16967:2015**

**en,fr,de**

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 16967**

April 2015

ICS 75.160.10

Supersedes EN 15290:2011

English Version

**Solid biofuels - Determination of major elements - Al, Ca, Fe,  
Mg, P, K, Si, Na and Ti (ISO 16967:2015)**

Biocombustibles solides - Détermination des éléments  
majeurs - Al, Ca, Fe, Mg, P, K, Si, Na et Ti (ISO  
16967:2015)

Biogene Festbrennstoffe - Bestimmung von  
Hauptelementen - Al, Ca, Fe, Mg, P, K, Si, Na und Ti (ISO  
16967:2015)

This European Standard was approved by CEN on 28 February 2015.

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.

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CEN members are the national standards bodies of 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

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## Foreword

This document (EN ISO 16967:2015) 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 October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.

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 15290:2011.

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The text of ISO 16967:2015 has been approved by CEN as EN ISO 16967:2015 without any modification.

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# INTERNATIONAL STANDARD

**ISO**  
**16967**

First edition  
2015-04-15

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## **Solid biofuels — Determination of major elements — Al, Ca, Fe, Mg, P, K, Si, Na and Ti**

*Biocombustibles solides — Détermination des éléments majeurs — Al,  
Ca, Fe, Mg, P, K, Si, Na et Ti*

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## ISO 16967:2015(E)

## 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](http://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](http://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 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*.

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## Introduction

The elements described as major elements of solid biofuels are in fact major elements of the fuel ashes more than of the fuels. The determination of these elements can be used to assess ash behaviour in a thermal conversion process or to assess utilization of ashes. Moreover, fuel contamination or process additives are indicated by high values of certain elements. Contamination of fuel with sand or soil is indicated by high values of several elements.

In this International Standard, wet chemical methods are described.

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