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Standards

Irish Standard  
I.S. EN 15290:2011

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

## I.S. EN 15290:2011

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*This document replaces:*  
CEN/TS 15290:2006

<i>This document is based on:</i> EN 15290:2011	<i>Published:</i> 17 February, 2011
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This document was published under the authority of the NSAI and comes into effect on: 17 February, 2011

ICS number:  
75.160.10

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English Version

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

Biocombustibles solides - Dosage des éléments majeurs -  
Al, Ca, Fe, Mg, P, K, Si, Na et Ti

Feste Biobrennstoffe - Bestimmung von Hauptelementen -  
Al, Ca, Fe, Mg, P, K, Si, Na und Ti

This European Standard was approved by CEN on 25 December 2010.

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## **Foreword**

This document (EN 15290:2011) has been prepared by 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of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

This document supersedes CEN/TS 15290:2006.

In the pre-normative project BIONORM I&II a robustness test has been performed to find out if all critical parameters in the standard were addressed. Based on the results of that test it has been concluded that all critical parameters were covered. Only minor technical changes were necessary which have been implemented in the revised text. The revision also includes a change of deliverable from Technical Specification to European Standard and updated normative references.

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.

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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 may be used to assess ash behaviour in a thermal conversion process or to assess utilisation 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 European Standard, wet chemical methods are described. As an alternative, X-ray fluorescence (XRF) may be used when validated with suitable materials (biomass reference materials).

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