

Solid biofuels - Conversion of analytical results from one basis to another (ISO 16993:2015)

## EESTI STANDARDI EESSÕNA

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English Version

**Solid biofuels - Conversion of analytical results from one basis to another (ISO 16993:2015)**

Biocombustibles solides - Conversion de résultats analytiques d'une base en une autre base (ISO 16993:2015)

Biogene Festbrennstoffe - Umwandlung von Analysenergebnissen einer Bezugsbasis in Ergebnisse mit anderer Bezugsbasis (ISO 16993:2015)

This European Standard was approved by CEN on 29 November 2014.

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## Foreword

This document (EN ISO 16993:2015) 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of an identical text or by endorsement, at the latest by October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.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.

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### Endorsement notice

The text of ISO 16993:2015 has been approved by CEN as EN ISO 16993:2015 without any modification.

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## Introduction

In the ISO Standards covering the analysis of solid biofuels, it is generally specified that the determination is intended to be carried out on the air-dried or in air-equilibrated general analysis test sample prepared according to EN 14780. However, in making use of these analyses, it is necessary to express the results on dry basis and sometimes, also on some other basis. The bases in common use for solid biofuels are “air-dried” (sometimes stated as “as determined”), “as received” (sometimes stated “as sampled” or “as delivered”), “dry”, and “dry, ash free”.

# Solid biofuels — Conversion of analytical results from one basis to another

## 1 Scope

This International Standard gives formulae which allow analytical data relating to solid biofuels to be expressed on the different bases in common use. Consideration is given to corrections that can be applied to certain determined values for solid biofuels prior to their calculation to other bases.

In [Annex A](#), tools for integrity checks of analytical results are given. In [Annex B](#), conversion factors for calculation into other units are given. [Annex C](#) is a guideline for the use of validation parameters as can be found in ISO/TC 238 analytical standards.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 16948:2015, *Solid biofuels — Determination of total content of carbon, hydrogen and nitrogen*

ISO 16994, *Solid biofuels — Determination of total content of sulphur and chlorine*

ISO 18122<sup>1)</sup>, *Solid Biofuels — Determination of ash content*

EN 14918<sup>2)</sup>, *Solid biofuels — Determination of calorific value*

ISO 18134-1<sup>1)</sup>, *Solid biofuels — Determination of moisture content — Oven dry method — Part 1: Total moisture - Reference method*

ISO 18134-2<sup>1)</sup>, *Solid biofuels — Determination of moisture content — Oven dry method — Part 2: Total moisture - Simplified method*

ISO 18134-3<sup>1)</sup>, *Solid biofuels — Determination of moisture content — Oven dry method — Part 3: Moisture in general analysis simple*

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1) To be published.

2) To be replaced by ISO 18125.