

Tahked biokütused. Tuhasisalduse määramine

Solid biofuels - Determination of ash content

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14775:2010 sisaldab Euroopa standardi EN 14775:2009 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.01.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 11.11.2009.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 14775:2010 consists of the English text of the European standard EN 14775:2009.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.01.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

Date of Availability of the European standard text 11.11.2009.

The standard is available from Estonian standardisation organisation.

ICS 75.160.10

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English Version

Solid biofuels - Determination of ash content

Biocombustibles solides - Méthode de détermination de la
teneur en cendres

Feste Biobrennstoffe - Bestimmung des Aschegehaltes

This European Standard was approved by CEN on 3 October 2009.

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Foreword

This document (EN 14775:2009) 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of an identical text or by endorsement, at the latest by May 2010, and conflicting national standards shall be withdrawn at the latest by May 2010.

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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1 Scope

This European Standard specifies a method for the determination of ash content of all solid biofuels (CEN/TS 14588).

2 Normative references

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

CEN/TS 14588:2003, *Solid biofuels — Terminology, definitions and descriptions*

EN 14774-3, *Solid biofuels — Determination of moisture content — Oven dry method — Part 3: Moisture in general analysis sample*

CEN/TS 14778 (all parts), *Solid biofuels – Sampling*

CEN/TS 14780, *Solid biofuels – Methods for sample preparation*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CEN/TS 14588:2003 and the following apply.

3.1 ash content

on dry basis, mass of inorganic residue remaining after ignition of a fuel under specified conditions expressed as a percentage of the mass of the dry matter in the fuel

4 Principle

The ash content is determined by calculation from the mass of the residue remaining after the sample is heated in air under rigidly controlled conditions of time, sample weight and equipment specifications to a controlled temperature of (550 ± 10) °C.

Automatic equipments may be used when the method is validated with biomass reference samples of an adequate biomass type. This equipment shall fulfill all the requirements given in Clause 7 regarding sample size, heating procedure, atmosphere, temperatures and weighing accuracy.

NOTE Difference in the ash content determined at a higher temperature, 815 °C, according to ISO 1171, compared to 550 °C is explained by the decomposition of carbonates forming CO₂, by losses of volatile inorganic compounds and further oxidation of inorganic compounds (to higher oxidation stage). In the ash content found in practise, for instance at a combustion plant, some of the released inorganic compounds are likely to be recovered in the fly ash while CO₂ and other gaseous compounds are traversed to air and will not form a part of the total amount of ash produced.