

Solid recovered fuels - Determination of ash content

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 15403:2011 sisaldab Euroopa standardi EN 15403:2011 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 31.03.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 09.03.2011.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 15403:2011 consists of the English text of the European standard EN 15403:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2011 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 09.03.2011.

The standard is available from Estonian standardisation organisation.

ICS 75.160.10

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English Version

Solid recovered fuels - Determination of ash content

Combustibles solides de récupération - Détermination de la
teneur en cendre

Feste Sekundärbrennstoffe - Bestimmung des
Aschegehaltes

This European Standard was approved by CEN on 22 January 2011.

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Foreword

This document (EN 15403:2011) has been prepared by Technical Committee CEN/TC 343 “Solid recovered fuels”, the secretariat of which is held by SFS.

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of an identical text or by endorsement, at the latest by September 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

This document supersedes CEN/TS 15403:2006.

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This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This document differs from CEN/TS 15403:2006 mainly as follows:

- a) use of automatic equipments under specific conditions permitted;
- b) results of interlaboratory tests supplemented as an informative Annex A;
- c) whole document editorially revised.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

This European Standard covers the determination of ash content of solid recovered fuels. It is primarily geared toward laboratories, producers, suppliers and purchasers of solid recovered fuels but is also useful for the authorities and inspection organizations.

The method specified in this European Standard is based on CEN/TS 14775 as well as ISO 1171.

1 Scope

This European Standard specifies a method for the determination of ash content of all solid recovered fuels.

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.

EN 15357:2011, *Solid recovered fuels — Terminology, definitions and descriptions*

EN 15414-3, *Solid recovered fuels — Determination of moisture content using the oven dry method — Part 3: Moisture in general analysis sample*

EN 15442, *Solid recovered fuels — Methods for sampling*

EN 15443, *Solid recovered fuels — Methods for the preparation of the laboratory sample*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15357:2011 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 mass fraction in percent of the dry matter in the fuel

4 Principle

The sample is heated in air atmosphere up to a temperature of $(550 \pm 10) ^\circ\text{C}$ under rigidly controlled conditions of time, sample mass and equipment specifications. The ash content is determined by calculation from the mass of the residue remaining after heating.

5 Apparatus

5.1 Dish, consisting of inert material such as porcelain, silica or platinum, with a depth from 10 mm to 20 mm and such a size that the sample loading does not exceed $0,1 \text{ g/cm}^2$ bottom area.

5.2 Furnace, capable of maintaining a zone of uniform temperature at the levels required in Clause 7 and to reach these levels in the specified heating rates. The ventilation rate through the furnace should be such that no lack of oxygen arises during the heating procedure.

NOTE A ventilation rate from 5 air changes/min to 10 air changes/min should be suitable.

5.3 Balance, capable of weighing the dish containing the sample to the nearest 0,1 mg.

5.4 Desiccator, without desiccant.

NOTE The use of a desiccator without desiccant is specified in ISO 1171 and emphasised here since ashes from solid recovered fuels are often more hygroscopic than coal ashes.