Solid biofuels - Fuel specifications and classes - Part 1: General requirements

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14961-1:2010 sisaldab Euroopa standardi EN 14961-1:2010 ingliskeelset teksti.	This Estonian standard EVS-EN 14961-1:2010 consists of the English text of the European standard EN 14961-1:2010.
Standard on kinnitatud Eesti Standardikeskuse 28.02.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 28.02.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 13.01.2010.	Date of Availability of the European standard text 13.01.2010.
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Solid biofuels - Fuel specifications and classes - Part 1: General requirements

Biocombustibles solides - Partie 1 : Classes et spécifications des combustibles

Feste Biobrennstoffe - Brennstoffspezifikationen und -klassen - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 1 November 2009.

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 Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

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Foreword

This document (EN 14961-1:2010) 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of an identical text or by endorsement, at the latest by July 2010, and conflicting national standards shall be withdrawn at the latest by July 2010.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.

This document supersedes CEN/TS 14961:2005.

The series EN 14961, *Solid biofuels — Fuel specifications and classes* is provided as a general requirement and additional product standards. Additional product standards may extend this series over time.

EN 14961, *Solid biofuel — Fuel specification and classes*, consists of the following parts:

— *Part 1: General requirements*

— *Part 2: Wood pellets for non-industrial use* (under development)

— *Part 3: Wood briquettes for non-industrial use* (under development)

— *Part 4: Wood chips for non-industrial use* (under development)

— *Part 5: Firewood for non-industrial use* (under development)

— *Part 6: Non woody pellets for non-industrial use* (under development)

Although these product standards may be obtained separately, they require a general understanding of the standards based on and supporting EN 14961-1. It is recommended to obtain and use EN 14961-1 in conjunction with these standards.

In these product standards, "non-industrial" use means use in smaller scale appliances, such as in households and small commercial and public sector buildings.

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 the United Kingdom.

Introduction

This European Standard, *Fuel Specifications and Classes — Part 1: General requirements*, has been produced by TC 335 Solid Biofuels Working Group "Fuel Specifications, Classes and Quality Assurance".

The objective of this European Standard is to provide unambiguous and clear classification principles for solid biofuels and to serve as a tool to enable efficient trading of biofuels and to enable good understanding between seller and buyer as well as a tool for communication with equipment manufacturers. It will also facilitate authority permission procedures and reporting.

This European Standard is made for all user groups.

Figure 1 describes the bioenergy utilisation chain from sources of biomass, to biofuel production to final use of bioenergy. Although biomass can be used for energy generation it has many other primary uses (non-fuels) as a raw material for construction, furniture, packaging, paper products, etc. The classifications given in this European Standard are provided with the objective of using biomass as a biofuel, and therefore do not deal with all other uses. The biofuels covered by this European Standard are identical to the fuels exempted from the Directive 2000/76/EC (Article 2.2 a) from i) to v)) on incineration of waste.

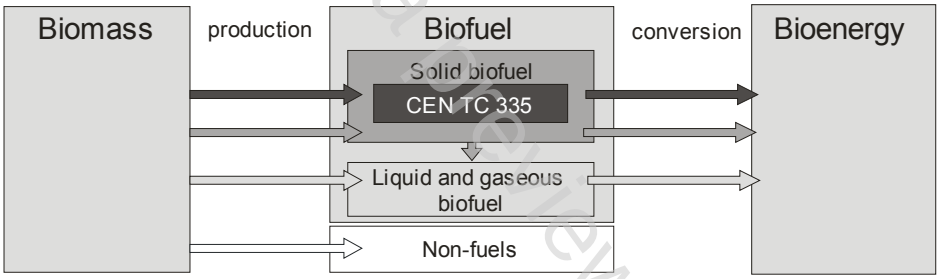

Figure 1 — CEN TC 335 within the biomass – Biofuel – Bioenergy field

1 Scope

This European Standard determines the fuel quality classes and specifications for solid biofuels. According to the mandate given for the standardisation work, the scope of the CEN/TC 335 only includes solid biofuels originating from the following sources:

a) products from agriculture and forestry;

b) vegetable waste from agriculture and forestry;

c) vegetable waste from the food processing industry;

d) wood waste, with the exception of wood waste which may contain halogenated organic compounds or heavy metals as a result of treatment with wood preservatives or coating, and which includes in particular such wood waste originated from construction and demolition waste;

e) fibrous vegetable waste from virgin pulp production and from production of paper from pulp, if it is co-incinerated at the place of production and heat generated is recovered;

f) cork waste.

NOTE 1 For the avoidance of doubt, demolition wood is not included in the scope of this European Standard. Demolition wood is “used wood arising from demolition of buildings or civil engineering installations” (prEN 14588).

NOTE 2 Aquatic biomass is not included in the scope of this European Standard.

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.

prEN 14588:2009, *Solid biofuels — Terminology, definitions and descriptions*

EN 14774-1, *Solid biofuels — Determination of moisture content — Oven dry method – Part 1: Total moisture — Reference method*

EN 14774-2, *Solid biofuels — Determination of moisture content — Oven dry method – Part 2: Total moisture — Simplified method*

EN 14775, *Solid biofuels — Determination of ash content*

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

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

EN 14918, *Solid Biofuels — Determination of calorific value*

EN 15103, *Solid Biofuels — Determination of bulk density*

CEN/TS 15104, *Solid biofuels — Determination of total content of carbon, hydrogen and nitrogen — Instrumental methods*

CEN/TS 15149-1, *Solid biofuels — Methods for the determination of particle size distribution — Part 1: Oscillating screen method using sieve apertures of 3,15 mm and above*

CEN/TS 15149-2, *Solid biofuels — Methods for the determination of particle size distribution — Part 2: Vibrating screen method using sieve apertures of 3,15 mm and below*

CEN/TS 15150, *Solid biofuels — Methods for the determination of particle density*

EN 15210-1, *Solid Biofuels — Determination of mechanical durability of pellets and briquettes — Part 1: Pellets*

CEN/TS 15210-2, *Solid biofuels — Methods for the determination of mechanical durability of pellets and briquettes — Part 2: Briquettes*

CEN/TS 15234, *Solid biofuels — Fuel quality assurance*

CEN/TS 15289, *Solid Biofuels — Determination of total content of sulphur and chlorine*

CEN/TS 15290, *Solid Biofuels — Determination of major elements*

CEN/TS 15296, *Solid Biofuels — Calculation of analyses to different bases*

CEN/TS 15297, *Solid Biofuels — Determination of minor elements*

CEN/TS 15370-1, *Solid biofuels — Method for the determination of ash melting behaviour — Part 1: Characteristic temperatures method*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 14588:2009 and the following apply.

3.1
chemical treatment
any treatment with chemicals other than air, water or heat (e.g. glue and paint)

NOTE Examples of chemical treatments are listed in informative Annex C.

4 Symbols and abbreviations

The symbols and abbreviations used in this European Standard comply with the SI system of units as far as possible.

d dry (dry basis)

daf dry, ash-free

ar as received

w-% weight-percentage