

**Solid biofuels - Fuel specifications and classes - Part 4:
Wood chips for non-industrial use**

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 14961-4:2011 sisaldab Euroopa standardi EN 14961-4:2011 ingliskeelset teksti.

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This Estonian standard EVS-EN 14961-4:2011 consists of the English text of the European standard EN 14961-4:2011.

This standard is ratified with the order of Estonian Centre for Standardisation dated 29.07.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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English Version

Solid biofuels - Fuel specifications and classes - Part 4: Wood chips for non-industrial use

Biocombustibles solides - Classes et spécifications des combustibles - Partie 4: Plaquettes de bois à usage non industriel

Feste Biobrennstoffe - Brennstoffspezifikationen und -klassen - Teil 4: Holzhackschnitzel für nichtindustrielle Verwendung

This European Standard was approved by CEN on 18 January 2011.

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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-CENELEC Management Centre has the same status as the official versions.

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Foreword

This document (EN 14961-4:2011) 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of an identical text or by endorsement, at the latest by December 2011, and conflicting national standards shall be withdrawn at the latest by December 2011.

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.

The European standard series EN 14961 *Solid biofuels — Fuel specifications and classes* are provided as general requirements and additional product standards. Additional product standards may extend this series over time.

EN 14961 consists of the following parts, under the title *Solid biofuels — Fuel specifications and classes*:

- *Part 1: General requirements;*
- *Part 2: Wood pellets for non-industrial use;*
- *Part 3: Wood briquettes for non-industrial use;*
- *Part 4: Wood chips for non-industrial use;*
- *Part 5: Firewood for non-industrial use;*
- *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.

NOTE In these product standards, non-industrial use means fuel intended to be used in smaller 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 for "Fuel Specifications and Classes — Part 4: Wood chips for non-industrial use" has been produced by CEN/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, 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 to support the use of wood chips in non-industrial situations and specifically for the domestic/householder markets and smaller commercial boiler situations, where sensitivity to the fuel quality can cause major issues. These consumers need special consideration for the following reasons:

- small-scale equipment does not usually have advanced controls and flue gas cleaning;
- it is not generally managed by professional heating engineers;
- they are often located in living and populated districts.

NOTE Wood chips produced according to this European Standard can be used in boilers tested according to EN 303-5 ($\leq 500 \text{ kW}_{\text{th}}$).

1 Scope

This European Standard determines the fuel quality classes and specifications for non-industrial wood chips. This European Standard covers only wood chip produced from the following raw materials (see EN 14961-1:2010, Table 1):

- 1.1 Forest, plantation and other virgin wood;
- 1.2 By-products and residues from wood processing industry;
- 1.3 Used wood.

NOTE 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” (EN 14588:2010, 4.52).

2 Normative references

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

EN 14588:2010, *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*

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

EN 14961-1:2010, *Solid biofuels — Fuel specifications and classes — Part 1: General requirements*

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

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

EN 15149-1, *Solid biofuels — Determination of particle size distribution — Part 1: Oscillating screen method using sieve apertures of 1 mm and above*

prEN 15234-4, *Solid biofuels — Fuel quality assurance — Part 4. Wood chips for non-industrial use*

EN 15289, *Solid biofuels — Determination of total content of sulphur and chlorine*

EN 15297, *Solid biofuels — Solid biofuels - Determination of minor elements - As, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, V and Zn*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 14588:2010 and the following apply.