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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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EUROPEAN STANDARD

**EN 15234-6**

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2012

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English Version

## Solid biofuels - Fuel quality assurance - Part 6: Non-woody pellets for non-industrial use

Biocombustibles solides - Assurance qualité du  
combustible - Partie 6: Granulés non ligneux à usage non  
industriel

Feste Biobrennstoffe - Qualitätssicherung von Brennstoffen  
- Teil 6: Nicht-holzartige Pellets für nichtindustrielle  
Verwendung

This European Standard was approved by CEN on 27 November 2011.

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

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## Foreword

This document (EN 15234-6:2012) 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of an identical text or by endorsement, at the latest by July 2012, and conflicting national standards shall be withdrawn at the latest by July 2012.

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

The European standard series EN 15234, *Solid biofuels — Fuel quality assurance* are provided as a general requirements and additional product standards. Additional product standards may extend this series over time.

EN 15234 consists of the following parts, under the general title *Solid biofuels — Fuel quality assurance*:

- *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.*

Although these product standards may be obtained separately, it should be recognized that they require an understanding of the standards based on and supporting EN 15234-1. It is recommended to obtain and use EN 15234-1 in conjunction with these standards.

**NOTE** In these product standards, non-industrial use means - use in smaller scale appliances, such as in households, in 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, Turkey and United Kingdom.

## Introduction

The overall aim of this European Standard is to guarantee the non-woody pellet quality through the whole supply chain, from the origin to the delivery of the solid biofuel and provide adequate confidence that specified quality requirements are fulfilled.

The objective of this European Standard is to serve as a tool to enable the efficient trading of non-woody pellets. Thereby:

- 1) the end-user can find a pellet that corresponds to its needs;
- 2) the producer/supplier can produce a pellet with defined and consistent properties and describe the pellet to the customers.

Quality assurance measures should establish confidence in the pellet through systems that are simple to operate and do not cause undue bureaucracy.

Non-woody pellets are specified according to EN 14961-6, *Solid biofuels — Fuel specifications and classes — Part 6: Non woody pellets for non-industrial use*.

## 1 Scope

This European Standard defines the procedures to fulfil the quality requirements (quality control) and describes measures to ensure adequate confidence that the non-woody pellet specification described in EN 14961-6 is fulfilled (quality assurance). This European Standard covers production and delivery chain, from purchasing of raw materials to point of delivery to the end-user.

This European standard covers only quality assurance for non-woody pellets produced from the non-woody biomasses stated in EN 14961-1:2010, Table 1 and EN 14961-6.

## 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 14588:2010, *Solid biofuels — Terminology, definitions and descriptions*

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

EN 14961-6:2012, *Solid biofuels — Fuel specifications and classes — Part 6: Non-woody pellets for non-industrial use*

EN 15234-1, *Solid biofuels — Fuel quality assurance — Part 1: General requirements*

**NOTE** In EN 14961-1:2010 there are listed Normative references of the European Standards for sampling and sample reduction and in EN 14961-6 for determination of solid biofuel properties.

## 3 Terms and definitions

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

### 3.1

#### **non-woody pellet**

densified non-woody biofuel made from pulverised (e.g. ground) biomass with or without additives usually with a cylindrical form diameter < 25 mm, random length and typically 3,15 mm to 40 mm with broken ends, obtain by mechanical compression

**NOTE** The raw material for non-woody pellets can be herbaceous biomass, fruit biomass, or biomass blends and mixtures. They are usually manufactured in a die with a total moisture content usually less than 15 % of their mass.

### 3.2

#### **additive**

material which improves the quality of the fuel (e.g. combustion properties), reduces emissions or makes production more efficient

### 3.3

#### **chemical treatment**

treatment with chemicals other than air, water or heat

**NOTE** Examples of chemical treatment are listed in informative Annex C of EN 14961-1:2010.

### 3.4

#### **impurities**

material other than the raw material or fuel itself such as soil, stones, metal, plastic, glass