

**Tahked biokütused. Kütuste spetsifikatsioonid ja klassid.  
Osa 1: Üldised nõuded**

**Solid biofuels - Fuel specifications and classes - Part 1:  
General requirements (ISO 17225-1:2014)**

## EESTI STANDARDI EESSÕNA

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See Eesti standard EVS-EN ISO 17225-1:2014 sisaldab Euroopa standardi EN ISO 17225-1:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 17225-1:2014 consists of the English text of the European standard EN ISO 17225-1:2014.
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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English Version

## Solid biofuels - Fuel specifications and classes - Part 1: General requirements (ISO 17225-1:2014)

Biocombustibles solides - Classes et spécifications des combustibles - Partie 1: Exigences générales (ISO 17225-1:2014)

Feste Biobrennstoffe - Brennstoffspezifikationen und -klassen - Teil 1: Allgemeine Anforderungen (ISO 17225-1:2014)

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN ISO 17225-1:2014) has been prepared by Technical Committee ISO/TC 238 "Solid biofuels" in collaboration with 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of an identical text or by endorsement, at the latest by November 2014, and conflicting national standards shall be withdrawn at the latest by November 2014.

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This document supersedes EN 14961-1:2010.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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### Endorsement notice

The text of ISO 17225-1:2014 has been approved by CEN as EN ISO 17225-1:2014 without any modification.

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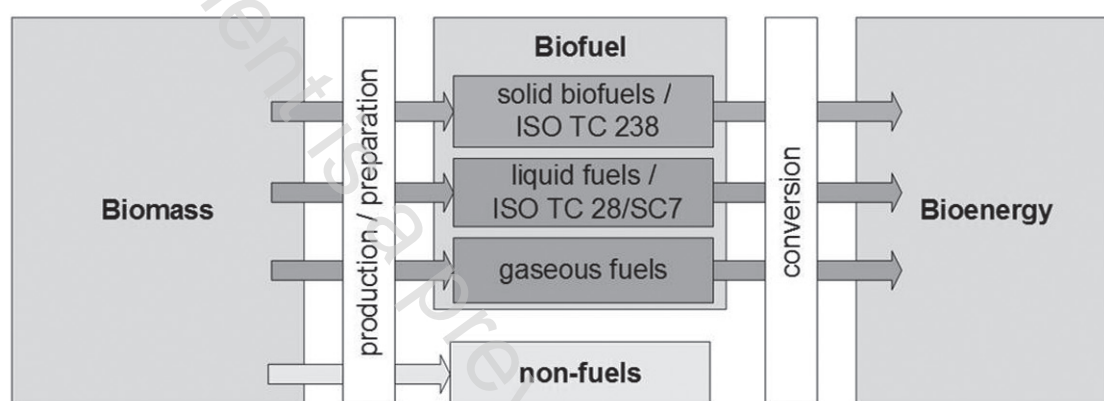
## Introduction

The objective of the ISO 17225 series 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.

The ISO 17225 series is made for all stakeholders.

Solid biomass covers organic, non-fossil material of biological origin which may be used as fuel for heat and electrical generation.

[Figure 1](#) describes the bioenergy utilization 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.



**Figure 1 — ISO TC 238 within the biomass — Biofuel — Bioenergy field**

The classifications given in this International Standard are provided with the objective of using biomass as a solid biofuel and therefore do not deal with all other uses.

Although these product standards may be obtained separately, they require a general understanding of the standards based on and supporting ISO 17225-1. It is recommended to obtain and use ISO 17225-1 in conjunction with these standards.

In these product standards, graded means that solid biofuel is used either in commercial applications, such as in households and small commercial and public sector buildings or industrial applications, which demand the use of fuels with specified quality (properties) expressed by quality classes like A1, A2 or B.

# Solid biofuels — Fuel specifications and classes —

## Part 1: General requirements

### 1 Scope

This part of ISO 17225 determines the fuel quality classes and specifications for solid biofuels of raw and processed materials originating from

- a) forestry and arboriculture;
- b) agriculture and horticulture;
- c) aquaculture.

Chemically treated material may not include halogenated organic compounds or heavy metals at levels higher than those in typical virgin material values (see [Annex B](#)) or higher than typical values of the country of origin.

NOTE Raw and processed material includes woody, herbaceous, fruit, aquatic biomass and biodegradable waste originating from above sectors.

### 2 Normative references

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

NOTE ISO standards describing methods for analysis of fuel properties listed in the Bibliography, will become normative references when they are published.

ISO 16559, *Solid biofuels — Terminology, definitions and descriptions*<sup>1)</sup>

ISO 16948, *Solid biofuels — Determination of total content of carbon, hydrogen and nitrogen*<sup>2)</sup>

ISO 16967, *Solid biofuels — Determination of major elements*<sup>3)</sup>

ISO 16968, *Solid biofuels — Determination of minor elements*<sup>4)</sup>

ISO 16993, *Solid biofuels — Conversion of analytical results from one basis to another*<sup>5)</sup>

ISO 16994, *Solid biofuels — Determination of total content of sulfur and chlorine*<sup>6)</sup>

ISO 17828, *Solid biofuels — Determination of bulk density*<sup>7)</sup>

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ISO 17829, *Solid biofuels — Determination of length and diameter for pellets*<sup>8)</sup>

ISO 17831-1, *Solid biofuels — Determination of mechanical durability of pellets and briquettes — Part 1: Pellets*<sup>9)</sup>

ISO 17831-2, *Solid biofuels — Determination of mechanical durability of pellets and briquettes — Part 2: Briquettes*<sup>10)</sup>

ISO 18122, *Solid biofuels — Determination of ash content*<sup>11)</sup>

ISO 18123, *Solid biofuels — Determination of the content of volatile matter*<sup>12)</sup>

ISO 18134-1, *Solid biofuels — Determination of moisture content — Oven dry method — Part 1: Total moisture — Reference method*<sup>13)</sup>

ISO 18134-2, *Solid biofuels — Determination of moisture content — Oven dry method — Part 2: Total moisture — Simplified method*<sup>14)</sup>

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16559 and the following apply.

#### 3.1 chemical treatment

any treatment with chemicals other than air, water or heat

Note 1 to entry: Examples of chemical treatments are listed in informative [Annex C](#).

#### 3.2 commercial application

facility that utilize solid biofuel burning appliances or equipment that have similar fuel requirements as residential appliances

Note 1 to entry: Commercial applications should not be confused with industrial applications, which can utilize a much wider array of materials and have vastly different fuel requirements.

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