

**Solid biofuels - Fuel specifications and classes - Part 2:
Graded wood pellets (ISO 17225-2:2014)**

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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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English Version

Solid biofuels - Fuel specifications and classes - Part 2: Graded wood pellets (ISO 17225-2:2014)

Biocombustibles solides - Classes et spécifications des combustibles - Partie 2: Classes de granulés de bois (ISO 17225-2:2014)

Feste Biobrennstoffe - Brennstoffspezifikationen und -klassen - Teil 2: Einteilung von Holzpellets (ISO 17225-2:2014)

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Foreword

This document (EN ISO 17225-2:2014) 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of an identical text or by endorsement, at the latest by November 2014, and conflicting national standards shall be withdrawn at the latest by November 2014.

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Endorsement notice

The text of ISO 17225-2:2014 has been approved by CEN as EN ISO 17225-2:2014 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; to serve as a tool to enable efficient trading of biofuels; to enable good understanding between seller and buyer as well as a tool for communication with equipment manufacturers. It also facilitates authority permission procedures and reporting.

This part of ISO 17225 supports the use of graded wood pellets for residential, small commercial and public buildings as well as industrial energy generation applications, which require classified pellet quality.

The residential, small commercial and public building applications require higher quality fuel for the following reasons:

- Small-scale equipment does not usually have advanced controls and flue gas cleaning.
- Appliances are not generally managed by professional heating engineers.
- Appliances are often located in residential and populated districts.

NOTE 1 Pellets produced according to this part of ISO 17225 may be used in pellet stoves, which are tested according to European Standard EN 14785[1], pellet burners tested according to EN 15270[2] and pellet boilers or integrated-pellet burner systems tested according to EN 303-5[3].

NOTE 2 For individual contracts, ISO 17225-1 can be used.

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.

Solid biofuels — Fuel specifications and classes —

Part 2: Graded wood pellets

1 Scope

This part of ISO 17225 determines the fuel quality classes and specifications of graded wood pellets for non-industrial and industrial use. This part of ISO 17225 covers only wood pellets produced from the following raw materials (see ISO 17225-1, Table 1):

- 1.1 Forest, plantation and other virgin wood;
- 1.2 By-products and residues from wood processing industry;
- 1.3.1 Chemically untreated used wood.

Thermally treated biomass pellets (e.g. torrefied pellets) are not included in the scope of this part of ISO 17225. Torrefaction is a mild pre-treatment of biomass at a temperature between 200 °C to 300 °C.

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*¹⁾

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

ISO 16968, *Solid biofuels — Determination of minor elements*³⁾

ISO 16994, *Solid biofuels — Determination of total content of sulfur and chlorine*⁴⁾

ISO 17225-1, *Solid biofuels — Fuel specifications and classes — Part 1: General requirements*

ISO 17828, *Solid biofuels — Determination of bulk density*⁵⁾

ISO 17829, *Solid Biofuels — Determination of length and diameter of pellets*⁶⁾

ISO 17831-1, *Solid biofuels — Determination of mechanical durability of pellets and briquettes — Part 1: Pellets*⁷⁾

1) To be published.

2) To be published.

3) To be published..

4) To be published..

5) To be published.

6) To be published.

7) To be published.

ISO 18122, *Solid biofuels — Determination of ash content*⁸⁾

ISO 18134-1, *Solid biofuels — Determination of moisture content — Oven dry method — Part 1: Total moisture — Reference method*⁹⁾

ISO 18134-2, *Solid biofuels — Determination of moisture content — Oven dry method — Part 2: Total moisture - Simplified method*¹⁰⁾

3 Terms and definitions

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

3.1

wood pellet

densified biofuel made from woody biomass with or without additives usually with a cylindrical form, random length typically 5 to 40 mm and diameter up to 25 mm and broken ends

Note 1 to entry: The raw material for wood pellets is woody biomass in accordance with Table 1 of ISO 17225-1. Pellets are usually manufactured in a die, with total moisture content usually less than 10 % of their mass on wet basis.

Note 2 to entry: The woody biomass used as feedstock for pellet making is milled to size in accordance with customer specification. Determination of the particle size distribution of the constituents of pellets is done by ISO 17830.

3.2

additive

material which has been intentionally introduced into the fuel feed stock to improve quality of fuel (e.g. combustion properties), to reduce emissions or to make production more efficient

Note 1 to entry: Trace amounts of e.g. grease or other lubricants that are introduced into the fuel processing stream as part of normal mill operations are not considered as additives.

3.3

chemical treatment

any treatment with chemicals other than air, water or heat

EXAMPLE Glue and paint.

Note 1 to entry: Examples of chemical treatment are listed in ISO 17225-1.

3.4

commercial application

facility that utilises 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.

8) To be published.

9) To be published.

10) To be published.