ICS 27.190 SLOVENSKÁ TECHNICKÁ NORMA Júl 2023

STN	**Tuhé biopalivá Špecifikácie a triedy palív Časť 8: Triedené palivá z tepelne upravenej a zhutnenej biomasy na komerčné a priemyselné použitie (ISO 17225-8: 2023)**	**STN EN ISO 17225-8** 65 7403

Solid biofuels - Fuel specifications and classes - Part 8: Graded thermally treated and densified biomass fuels for commercial and industrial use (ISO 17225-8:2023)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/23

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EUROPEAN STANDARD

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EN ISO 17225-8

April 2023

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English Version

Solid biofuels - Fuel specifications and classes - Part 8: Graded thermally treated and densified biomass fuels for commercial and industrial use (ISO 17225-8:2023)

Biocombustibles solides - Classes et spécifications des combustibles - Partie 8: Combustibles de biomasses traitées thermiquement et densifiées en vue d'une utilisation commerciale et industrielle (ISO 17225-8:2023)

Biogene Festbrennstoffe - Brennstoffspezifikationen und -klassen - Teil 8: Klassifizierung von thermisch behandelten und gepressten Brennstoffen aus Biomasse für gewerbliche und industrielle Verwendung (ISO 17225-8:2023)

This European Standard was approved by CEN on 27 February 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN ISO 17225-8:2023 E

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European foreword

This document (EN ISO 17225-8:2023) 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of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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Endorsement notice

The text of ISO 17225-8:2023 has been approved by CEN as EN ISO 17225-8:2023 without any modification.

INTERNATIONAL STANDARD

ISO 17225-8

First edition
2023-03

Solid biofuels — Fuel specifications and classes —

Part 8: Graded thermally treated and densified biomass fuels for commercial and industrial use

Biocombustibles solides — Classes et spécifications des combustibles —

Partie 8: Combustibles de biomasses traitées thermiquement et densifiées en vue d'une utilisation commerciale et industrielle

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 238, *Solid biofuels*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 335, *Solid biofuels*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition cancels and replaces the first edition (ISO/TS 17225-8:2016), which has been technically revised.

The main changes are as follows:

— raw material basis enlarged;

— Tables 1 to 6 merged into Tables 1 to 3, to be used for pellets and briquettes;

— table for thermally treated woody biomass split in two tables (Table 1 and Table 2);

— threshold values for Tables 1 to 3 stated in terms of energy;

— Annex A has been introduced to support product specification;

— Annex B has been introduced to support the calculation of the limit values in terms of energy given in Tables 1 to 3.

A list of all parts in the ISO 17225 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The objective of this document 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 to serve as a tool for communication with equipment manufacturers. It will also facilitate legal permission procedures and reporting.

This document supports the use of thermally treated and densified biomass in commercial and industrial energy generation applications and in industrial processes, which require classified quality.

Thermal treatment includes processes such as torrefaction, steam explosion, hydrothermal carbonization and charring, all of which represent different exposure to heat, oxygen, steam or water. Thermally treated and densified biomass fuels should only be used in plants with manufacturer approval.

For individual contracts, ISO 17225-1 can be used. ISO 17225-1 can also be used for specification of charcoal.

Although this document may be used separately, a general understanding of the standards based on and supporting ISO 17225-1 is required. It is recommended that ISO 17225-1 is used in conjunction with this document.

INTERNATIONAL STANDARD **ISO 17225-8:2023(E)**

Solid biofuels — Fuel specifications and classes —

Part 8: Graded thermally treated and densified biomass fuels for commercial and industrial use

1 Scope

This document determines the fuel quality classes and specifications of graded densified solid biofuels produced from thermally treated biomass for commercial applications and industrial use. This document covers pellets and briquettes produced from the following raw materials (see ISO 17225-1:2021, Table 1):

— woody biomass;

— herbaceous biomass;

— fruit biomass;

— aquatic biomass;

— blends and mixtures.

Subcategories of these raw materials are included.

This document does not consider products which are marketed as charcoal or as charcoal products. For these products, see ISO 17225-1:2021, Table 14.

NOTE Health, safety and environmental issues for solid biofuels are important and need special attention; however, they are outside the scope of this document.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 5370, *Solid biofuels — Determination of fines content in pellets*

ISO 14780, *Solid biofuels — Sample preparation*

ISO 16559, *Solid biofuels — Vocabulary*

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

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

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

ISO 17225-1:2021, *Solid biofuels — Fuel specifications and classes — Part 1: General requirements*

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

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

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

ISO 17831-2, *Solid biofuels — Determination of mechanical durability of pellets and briquettes — Part 2: Briquettes*

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

ISO 18125, *Solid biofuels — Determination of calorific value*

ISO 18134-1, *Solid biofuels — Determination of moisture content — Part 1: Reference method*

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

ISO 18135, *Solid Biofuels — Sampling*

ISO 21945, *Solid biofuels — Simplified sampling method for small scale applications*