

Solid biofuels - Vocabulary (ISO 16559:2022)

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ICS 01.040.27, 01.040.75, 27.190, 75.160.40

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EUROPEAN STANDARD

EN ISO 16559

NORME EUROPÉENNE

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English Version

Solid biofuels - Vocabulary (ISO 16559:2022)

Biocombustibles solides - Vocabulaire (ISO
16559:2022)

Biogene Festbrennstoffe - Terminologie, Definitionen
und Beschreibungen (ISO 16559:2022)

This European Standard was approved by CEN on 30 November 2021.

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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

European foreword

This document (EN ISO 16559:2022) 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of an identical text or by endorsement, at the latest by July 2022, and conflicting national standards shall be withdrawn at the latest by July 2022.

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.

This document supersedes EN ISO 16559:2014.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 16559:2022 has been approved by CEN as EN ISO 16559:2022 without any modification.

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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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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 second edition cancels and replaces the first edition (ISO 16559:2014), which has been technically revised. The main changes are as follows:

- [Clause 3](#) has been updated;
- the title of this document has been changed;
- [Annex A](#) has been added.

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

Some of the terms included in this document are only used in particular countries.

In this document, terms for virgin biomass, residue, and by-product are used to describe co-products from forestry, arboriculture, agriculture, horticulture and aquaculture as well as related virgin biomass industries. The terms and definitions are harmonized as far as possible with the current language used in management as well as in regulatory activities.

This document only contains terms used to describe solid biofuels within the scope of ISO/TC 238, see [Figure 1](#).

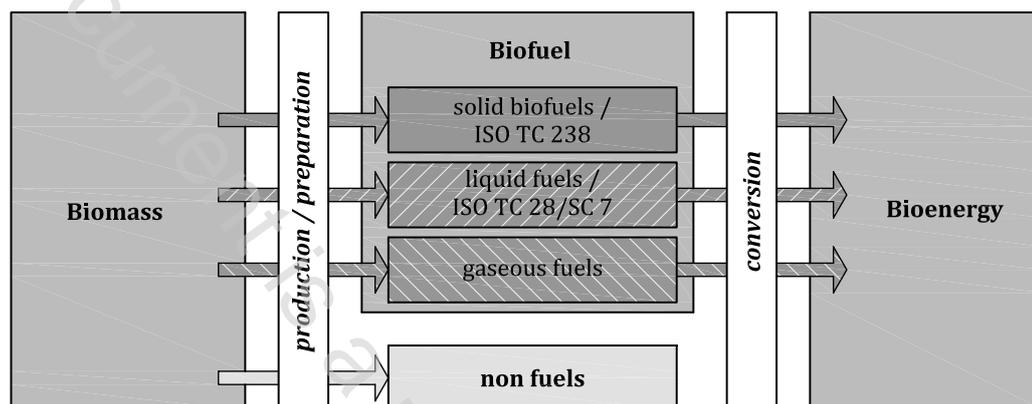


Figure 1 — ISO/TC 238 within the biomass-biofuel-bioenergy field

Solid biofuels are produced from different sources. Terms and definitions are categorized in a logical structure based on the fact that solid biofuels are produced from different sources and that solid biofuels are used to produce bioenergy:

- origin and source of solid biofuels in the overall supply chain;
- the different traded forms as well as the different forms of biofuels produced within the preparation processes;
- the most relevant solid biofuel properties and terms of sampling and testing as well as classification and specification;
- the description of the solid biofuels itself as well as their handling and processing given in the same structure as the biomass sources;
- bioenergy as the result of solid biofuel conversion.

Appropriate terms for sampling and testing as well as classification and specification of properties should be defined and described together with the category source/origin, type and properties of solid biofuels. The inclusion of terms defined in this document is, in many cases, based on the detailed classification system of solid biofuels given in ISO 17225-1.

Solid biofuels — Vocabulary

1 Scope

This document establishes a vocabulary for solid biofuels. This document only includes raw and processed material originating from

- forestry and arboriculture,
- agriculture and horticulture, and
- aquaculture.

NOTE 1 Chemically treated material cannot include halogenated organic compounds or heavy metals at levels higher than those in typical virgin material values (see also ISO 17225-1:2021, Annex B) or higher than typical values of the country of origin.

NOTE 2 Raw and processed material includes woody, herbaceous, fruit and aquatic biomass and biodegradable waste originating from above sectors.

Materials originating from different recycling processes of end-of-life-products are outside the scope of this document but relevant terms are included for information. Liquid biofuels (ISO/TC 28/SC 7), natural gas (ISO/TC 193) and solid recovered fuels (ISO/TC 300) are outside the scope of this document.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

absorption

phenomenon whereby atoms, ions, or molecules from a gas, liquid, or dissolved solid permeates or is dissolved by a liquid or solid (the absorbent)

Note 1 to entry: *Adsorption* (3.3) is a surface-based process while *absorption* involves the whole *volume* (3.214) of the material.

3.2

additive

material which has been intentionally introduced into the fuel *feedstock* (3.86) to improve *quality* (3.160) of *fuel* (3.99) (e.g. combustion or durability 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* (3.99) processing stream as part of typical mill operations are not considered as additives.

[SOURCE: ISO 17225-2:2021, 3.1]