BS EN ISO 17829:2025

BSI Standards Publication

Solid biofuels — Determination of length and diameter of pellets

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The UK participation in its preparation was entrusted to Technical Committee PTI/17, Solid biofuels.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Solid biofuels - Determination of length and diameter of pellets (ISO 17829:2025)

Biocombustibles solides - Détermination de la longueur et du diamètre des granulés (ISO 17829:2025)

Biogene Festbrennstoffe - Bestimmung der Länge und des Durchmessers von Pellets (ISO 17829:2025)

This European Standard was approved by CEN on 12 September 2025.

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European foreword

This document (EN ISO 17829:2025) has been prepared by Technical Committee ISO/TC 238 "Solid Biofuels and Pyrogenic Biocarbon" in collaboration with Technical Committee CEN/TC 335 “Solid Biofuels and Pyrogenic Biocarbon” 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of an identical text or by endorsement, at the latest by March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

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 17829:2025 has been approved by CEN as EN ISO 17829:2025 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 document 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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This document was prepared by Technical Committee ISO/TC 238, *Solid Biofuels and Pyrogenic Biocarbon*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 335, *Solid Biofuels and Pyrogenic Biocarbon,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 17829:2015), which has been technically revised.

The main changes are as follows:

— extended scope which now includes the determination of specified pellet length fractions;

— description of a procedure to determine fractions of specified length including particles < 10 mm;

— added definition of pellet length;

— modified drawings for measuring pellet length;

— changed sizes of the test portions for the determination of the pellet length and fractions of specific length including pellets > 40 mm;

— changed procedures for measuring pellet length with two options: using a device for measuring the pellet length or a calliper;

— added measurement and reporting of the length of the longest pellet if pellets over 40 mm are found

— added informative annex with a device for measuring the length of pellets with other diameters than 6 mm;

— added informative annex with comparing data for the determination of pellet length with different methods

— added informative annex with an example of a building plan for a measuring block

— updated references;

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— modified drawings of pellet length to avoid potential ambiguity.

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Introduction

Pellets with a length and diameter outside the specification can cause problems with transportation in screw conveyors, silo outlets, and burner feeding systems. ISO 17225-1, ISO 17225-2, ISO 17225-6, and ISO 17225-8 stipulate the dimensions of pellets. The average pellet length and the amount of pellets of specific size fractions can influence the bulk density and the combustion behaviour.

This document describes procedures for determining the diameter class according to ISO 17225-2 as well as the length and diameter of pellets and the shares of specified pellet length fractions.

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Solid biofuels — Determination of length and diameter of pellets

1 Scope

This document specifies the methods for determination of the diameter and length of pellets. Concerning the pellet length, methods for the determination of fractions of specified lengths, such as pellets > 40 mm and particles < 10 mm and for determination of the average length are included.

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 3310-2, *Test sieves — Technical requirements and testing — Part 2: Test sieves of perforated metal plate*

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

ISO 14780, *Solid biofuels — Sample preparation*

ISO 16559, *Solid biofuels — Vocabulary*

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

ISO 17225-2, *Solid biofuels — Fuel specifications and classes — Part 2: Graded wood pellets*

ISO 17225-6, *Solid biofuels — Fuel specifications and classes — Part 6: Graded non-woody pellets*

ISO 17225-8, *Solid biofuels — Fuel specifications and classes — Part 8: Graded thermally treated and densified biomass fuels for commercial and industrial use*

ISO 18135, *Solid Biofuels — Sampling*

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16559 and the following 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
pellet length
distance from endpoint to endpoint along the pellet axis

Note 1 to entry: Before measuring the pellet length, the coarse pellet fines (fraction of particles between 3,15 mm and 5,6 mm) are removed by sieve according to ISO 5370. For determination of the average pellet length, this fraction is not considered. For the determination of specific size fractions, the coarse pellet fines is included as mass fraction.

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