



International  
Standard

**ISO 17827-1**

**Solid biofuels — Determination  
of particle size distribution for  
uncompressed fuels —**

Part 1:  
**Oscillating screen method using  
sieves with apertures of 3,15 mm  
and above**

*Biocombustibles solides — Détermination de la distribution  
granulométrique des combustibles non comprimés —*

*Partie 1: Méthode au tamis oscillant d'ouverture de maille égale  
ou supérieure à 3,15 mm*

**Second edition  
2024-05**

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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](http://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](http://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 17827-1:2016), which has been technically revised.

The main changes are as follows: [ISO 17827-1:2024](http://www.iso.org/standards/iso/460aea1b-80d1-4627-9322-066d71f0ef25/iso-17827-1-2024)

- 8-mm-sieve has been removed from the set of sieves;
- the required minimum sieving time can now optionally be chosen based on pre-tests;
- table of results has been completely modified;
- calculation of median value (Annex) has been deleted;
- precision requirements have been deleted;
- references have been updated.
- an introduction has been added;
- editorial changes have been made.

A list of all parts in the ISO 17827 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](http://www.iso.org/members.html).

## Introduction

Particle size and size distribution of uncompressed solid biofuels significantly influence the transport, handling and combustion properties of solid fuels. Depending on the type of fuel feeding and the type and size of a conversion plant, fuels of different particle sizes are suitable. Of particular interest are also the fines fraction and oversized particles. An increased content of fine particles can lead to clogging in feed systems and unsteady combustion. Oversized particles can block conveying systems or cause bridging problems in silos and can reduce the bulk density of the fuel. Very fine particles can have negative health effects and are relevant for explosion protection reasons ( $< 0,5$  mm).

The ISO 17827 series, describing the determination of particle size distribution, consists of the following parts under the general title Solid biofuels — Determination of particle size distribution for uncompressed fuels:

Part 1: Oscillating screen method using sieves with apertures of 3,15 mm and above

Part 2: Vibrating screen method using sieves with apertures of 3,15 mm and below

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