



BSI Standards Publication

# 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

**National foreword**

This British Standard is the UK implementation of EN ISO 17827-1:2016. It supersedes BS EN 15149-1:2010 which is withdrawn.

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 secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

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EUROPEAN STANDARD

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English Version

**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 (ISO  
17827-1:2016)**

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  
(ISO 17827-1:2016)

Biogene Festbrennstoffe - Bestimmung der  
Partikelgrößenverteilung für unkomprimierte  
Brennstoffe - Teil 1: Horizontales Rüttelsiebverfahren  
mit Sieben mit einer Lochgröße von 3,15 mm und  
darüber (ISO 17827-1:2016)

This European Standard was approved by CEN on 20 February 2016.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## **European foreword**

This document (EN ISO 17827-1:2016) 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 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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

This document supersedes EN 15149-1:2010.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### **Endorsement notice**

The text of ISO 17827-1:2016 has been approved by CEN as EN ISO 17827-1:2016 without any modification.

# Contents

Page

Foreword .....	iv
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>1</b>
<b>4 Principle .....</b>	<b>2</b>
<b>5 Apparatus .....</b>	<b>2</b>
<b>6 Sample preparation .....</b>	<b>3</b>
6.1 Sample size .....	3
6.2 Moisture conditioning .....	3
<b>7 Procedure .....</b>	<b>4</b>
<b>8 Calculation .....</b>	<b>4</b>
<b>9 Performance characteristics .....</b>	<b>5</b>
9.1 Repeatability .....	5
9.2 Reproducibility .....	6
<b>10 Test report .....</b>	<b>6</b>
<b>Annex A (normative) Determination of the median value of a particle size distribution .....</b>	<b>7</b>
<b>Bibliography .....</b>	<b>9</b>

## 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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#).

The committee responsible for this document is ISO/TC 238, *Solid biofuels*.

ISO 17827 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*

NOTE ISO 17827-2 can also be used for round hole sieves with apertures of 4,0 mm and 5,6 mm.

# 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

## 1 Scope

This part of ISO 17827 specifies a method for the determination of the size distribution of particulate biofuels by the horizontally oscillating screen method. It applies to particulate uncompressed fuels with a nominal top size of 3,15 mm and above, e.g. wood chips, hog fuel, olive stones, etc. The method is intended to characterize material up to a particle size class of P63. For larger P-classes, the characterization is mainly done by hand sorting.

## 2 Normative references

The following 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.

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

ISO 16559, *Solid biofuels — Terminology, definitions and descriptions*

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

ISO 17827-2<sup>1)</sup>, *Solid biofuels — Determination of particle size distribution for uncompressed fuels — Part 2: Vibrating screen method using sieves with apertures of 3,15 mm and below*

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

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

EN 14778, *Solid biofuels — Sampling*

EN 14780, *Solid biofuels — Sample preparation*

## 3 Terms and definitions

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

### 3.1

#### **median value of the size distribution**

median value [d<sub>50</sub>] that separates a distribution into two equal parts

Note 1 to entry: Graphically, the median value is the intercept point of the cumulative size distribution curve with the 50 % horizontal line.

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1) To be published.