

**SLOVENSKI STANDARD**  
**oSIST prEN ISO 17827-2:2015**  
**01-april-2015**

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**Trdna biogoriva - Določevanje porazdelitve velikosti delcev za nekomprimirana goriva - 2. del: Metoda z vibracijskim sitom z odprtini 3,15 mm in manj (ISO/DIS 17827-2:2015)**

Solid biofuels - Determination of particle size distribution for uncompressed fuels - Part 2: Vibrating screen method using sieves with aperture of 3,15 mm and below (ISO/DIS 17827-2:2015)

Biogene Festbrennstoffe - Bestimmung der Partikelgrößenverteilung für unkomprimierte Brennstoffe - Teil 2: Vertikales Rüttelsiebverfahren mit Sieben zur Klassifizierung von Proben mit einer Höchst-Sieb-Lochgröße von 3,15 mm und darunter (ISO/DIS 17827-2:2015)

Biocombustibles solides - Détermination de la distribution granulométrique des combustibles non comprimés - Partie 2: Méthode au tamis vibrant d'ouverture de maille inférieure ou égale à 3,15 mm (ISO/DIS 17827-2:2015)

**Ta slovenski standard je istoveten z: prEN ISO 17827-2**

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**ICS:**

27.190	Biološki viri in drugi alternativni viri energije	Biological sources and alternative sources of energy
75.160.10	Trda goriva	Solid fuels

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**en,de**



# DRAFT INTERNATIONAL STANDARD

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

Part 2:

### Vibrating screen method using sieves with aperture of 3,15 mm and below

*Titre manque*

ICS: 27.190; 75.160.10

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#### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.



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## ISO/DIS 17827-2:2014(E)

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

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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, Working Group WG 4, Physical and Mechanical Test Methods.

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## Introduction

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*

Note: Part 2 can also be used for round hole sieves with apertures of 4,0 and 5,6 mm.

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

## Part 2:

## Vibrating screen method using sieves with aperture of 3,15 mm and below

### 1 Scope

This document specifies a method for the determination of the size distribution of particulate biofuels by the vibrating screen method. The method described is meant for particulate biofuels only, namely materials that either have been reduced in size, such as most wood fuels, or are physically in a particulate form. This document applies to particulate uncompressed fuels with a nominal top size of 3,15 mm and below (e.g. sawdust).

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

ISO CD 18135 (14778), *Solid biofuels – Sampling*

ISO CD 14780, *Solid biofuels – Sample preparation*

ISO/FDIS 18134-1, (14774-1), *Solid biofuels – Determination of moisture content – Oven dry method – Part 1: Total moisture – Reference method*

ISO/FDIS 18134-2, (14774-2), *Solid biofuels – Determination of moisture content – Oven dry method – Part 2: Total moisture – Simplified method*

ISO 17225-1, (14961-1), *Solid biofuels — Fuel specifications and classes — Part 1: General requirements*

ISO/DIS 17827-1, (15149-1), *Solid biofuels – Determination of particle size distribution for uncompressed fuels – Part 1: Oscillating screen using sieves with apertures of 3,15 mm and above*

ISO 3310-1, *Test sieves – Technical requirements and testing – Part 1: Test sieves of metal wire cloth*

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

### 3 Terms and definitions

#### 3.1

##### Nominal top size

Aperture of the sieve where at least 95 % by mass of the material passes (see ISO 16559)

#### 3.2

##### Test sample

The original sample sent to the laboratory for analysis

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### 3.3

#### **Test portion**

The sample extracted from the test sample and used during the analysis

### 3.4

#### **Sub portion**

A portion extracted from the test portion

### 3.5

#### **Sieve fraction**

The material collected on a sieve

Note 1 to entry: For the purpose of this document, the terms and definitions given in ISO 16559 apply.

## 4 Principle

A test sample is subjected to sieving through vibrating sieves, sorting the particles in decreasing size classes by mechanical means.

Note Manual sieving is excluded due to the fact that small sieve holes may easily be clogged by particles.

## 5 Apparatus

### 5.1 Sieves

For the test an appropriate number of either circular or rectangular sieves with a minimum effective sieve area of 250 cm<sup>2</sup> is required. For test samples with a top size below 3,15 mm the sieves shall have an aperture geometry in accordance with ISO 3310 Part 1 (metal wire cloth) and for test materials with a top size 3,15 mm or above the sieves shall have round perforated holes in metal plate in accordance with ISO 3310 Part 2 (perforated metal plate). The frame of the sieves shall have a height that enable the sieves to contain the samples and allows a free movement of the sample during the sieving process.

The number of sieves and the aperture sizes of the sieves shall be chosen in accordance with the size specification for the actual test sample material (see also ISO 17225-1). For sawdust and similar fine grade materials the following set of sieves is recommended:

- 3,15 mm round holes;
- 2,8 mm metal wire cloth;
- 2,0 mm metal wire cloth;
- 1,4 mm metal wire cloth;
- 1,0 mm metal wire cloth;
- 0,5 mm metal wire cloth;
- 0,25 mm metal wire cloth.

Note If further classification of larger particles is required, sieves with round holes with an aperture of 4,0 and 5,6 mm may be applied.

### 5.2 Collecting pan

For collection of material passing through the sieves a collecting pan of adequate size is required.