

**TAHKED BIOKÜTUSED. PELLETITE JA BRIKETTIDE
MEHAANILISE VASTUPIDAVUSE MÄÄRAMINE. OSA 1:
PELLETID**

**Solid biofuels - Determination of mechanical durability
of pellets and briquettes - Part 1: Pellets (ISO 17831-
1:2015)**

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-EN ISO 17831-1:2015 sisaldab Euroopa standardi EN ISO 17831-1:2015 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 17831-1:2015 consists of the English text of the European standard EN ISO 17831-1:2015.
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English Version

Solid biofuels - Determination of mechanical durability of pellets and briquettes - Part 1: Pellets (ISO 17831-1:2015)

Biocombustibles solides - Détermination de la
résistance mécanique des granulés et des briquettes -
Partie 1: Granulés (ISO 17831-1:2015)

Biogene Festbrennstoffe - Bestimmung der
mechanischen Festigkeit von Pellets und Briketts - Teil
1: Pellets (ISO 17831-1:2015)

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European foreword

This document (EN ISO 17831-1:2015) 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of an identical text or by endorsement, at the latest by June 2016, and conflicting national standards shall be withdrawn at the latest by June 2016.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.

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Endorsement notice

The text of ISO 17831-1:2015 has been approved by CEN as EN ISO 17831-1:2015 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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The committee responsible for this document is ISO/TC 238, *Solid biofuels*.

ISO 17831 consists of the following parts under the general title *Solid Biofuels — Determination of mechanical durability of pellets and briquettes*:

- *Part 1: Pellets*
- *Part 2: Briquettes*

Introduction

Compressed solid biomass fuel is usually classified either as pellets or briquettes, of which pellets usually have a diameter below 25 mm while for briquettes the diameter is higher (see ISO 17225-1). To account for the different particle dimensions, it was necessary to define different test apparatuses for determination of durability for pellets and briquettes.

Solid biofuels — Determination of mechanical durability of pellets and briquettes —

Part 1: Pellets

1 Scope

This part of ISO 17831 defines a determination method for testing the mechanical durability of pellets. The mechanical durability is a measure of the resistance of compressed fuels towards shocks and/or abrasion as a consequence of handling and transportation.

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 14780, *Solid biofuels — Sample preparation*¹⁾

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

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*

ISO 18135, *Solid Biofuels — Sampling*¹⁾

3 Terms and definitions

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

4 Principle

A test portion is subjected to controlled shocks by collision of pellets against each other and against the walls of a specified rotating test chamber. The durability is calculated from the mass of test portion, after separation by sieving of particles less than 3,15 mm, and the mass of the test portion after tumbling.

5 Apparatus

5.1 Pellets tester

The structure and dimensions of the pellet tester are shown in [Figure 1](#) (see also Annex A).

1) In preparation.