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

**Part 1:
Pellets**

*Biocombustibles solides — Détermination de la résistance mécanique
des granulés et des briquettes —*

Partie 1: Granulés



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Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	1
6 Sample preparation	3
7 Procedure	3
7.1 Tumbling procedure	3
7.2 Sieving procedure	3
8 Calculation of the mechanical durability	4
9 Performance characteristics	4
9.1 General	4
9.2 Repeatability	4
9.3 Reproducibility	4
10 Test report	4
Annex A (informative) Example of pellets tester with two boxes	6
Bibliography	7

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.

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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*.

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.