

STN	Tuhé biopalivá. Stanovenie objemovej hmotnosti peliet a brikiet (ISO 18847: 2016).	STN EN ISO 18847 65 7420
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Solid biofuels - Determination of particle density of pellets and briquettes (ISO 18847:2016)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 02/17

Obsahuje: EN ISO 18847:2016, ISO 18847:2016

Oznámením tejto normy sa ruší
STN EN 15150 (65 7420) z mája 2012

124408

EUROPEAN STANDARD

EN ISO 18847

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2016

ICS 75.160.10; 27.190

Supersedes EN 15150:2011

English Version

Solid biofuels - Determination of particle density of pellets and briquettes (ISO 18847:2016)

Biocombustibles solides - Détermination de la masse
volumique unitaire des granulés et des briquettes (ISO
18847:2016)

Biogene Festbrennstoffe - Bestimmung der
Partikeldichte von Pellets und Briketts (ISO
18847:2016)

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European foreword

This document (EN ISO 18847:2016) 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of an identical text or by endorsement, at the latest by March 2017, and conflicting national standards shall be withdrawn at the latest by March 2017.

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Endorsement notice

The text of ISO 18847:2016 has been approved by CEN as EN ISO 18847:2016 without any modification.

Solid biofuels — Determination of particle density of pellets and briquettes

*Biocombustibles solides — Détermination de la masse volumique
unitaire des granulés et des briquettes*



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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*.

Introduction

Particle density is a fuel parameter of pellets and briquettes which is often considered when describing the degree of compaction of the raw material used. Particle density can be highly specific for the respective type or species of biomass and thus, it also characterizes the material's general ability to be compacted. High particle density is often associated with high resistance to abrasion or low susceptibility towards fracturing during handling and storage. A high particle density also generally leads to reduced storage volume demands and to a lower filling level in combustion chamber at constant fuel mass flow. Particle density can also affect the heat transfer rate within the fuel and thus, it can have an impact on fuel ignition and on the dynamics of gasification.

Apart from the buoyancy method which is described in this International Standard as reference method, larger particles (briquettes) are sometimes easier tested by simple stereometric means. For internal laboratory practices, such a procedure is also presented in [Annex A](#). For small particles (pellets), this procedure is not recommended.

Solid biofuels — Determination of particle density of pellets and briquettes

1 Scope

This International Standard specifies the method for determining the particle density of compressed fuels such as pellets or briquettes. Particle density is not an absolute value and conditions for its determination have to be standardized to enable comparative determinations to be made.

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 14780¹⁾, *Solid biofuels — Sample preparation*

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 18135²⁾, *Solid biofuels — Sampling*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

1) To be published.

2) To be published.