International Standard

ISO 17831-1

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

Second edition
2025-03

Reference number
ISO 17831-1:2025(en)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 238, *Solid biofuels and pyrogenic biocarbon,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 335, *Solid biofuels and pyrogenic biocarbon,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 17831-1:2015), which has been technically revised.

The main changes are as follows:

— the introduction has been revised;

— a reference to ISO 21945 has been included;

— the description of the sample preparation has been revised to provide more practical guidance for the preparation of test portions;

— the description of sieving procedures has been substituted by a reference to ISO 5370.

A list of all parts in the ISO 17831 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Compressed solid biomass fuel is usually assigned either as pellets or briquettes, of which pellets usually have a diameter less or equal to 25 mm while for briquettes the diameter is higher (see ISO 17225-1). The mechanical durability is an important parameter to estimate the tendency to create new fines by abrasion of pellets or briquettes during handling.

To account for the different particle dimensions, it is necessary to specify different test apparatuses for determination of the mechanical durability of pellets and briquettes.