International Standard

ISO 17830

# Solid biofuels — Particle size distribution of disintegrated pellets

*Biocombustibles solides — Distribution granulométrique des granulés désintégrés*

Second edition
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# Foreword

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



This second edition cancels and replaces the first edition (ISO 17830:2016), which has been technically revised.



The main changes are as follows:

— set of suggested sieves has been modified to better reflect industry practice and to be consistent with ISO 17827-2;

— a specific table for the results of size distribution analysis for quality control of pellets for industrial use has been added. The order of sieves was reversed to align with other standards;

— a figure has been added to show the sample division;

— details have been added to clarify the procedure and to improve the accuracy;

— normative references have been updated and amended;

— editorial changes have been made.

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# Introduction

In power plants with powder fuel burners for energy production, operators need information about the particle size distribution of the fuel for optimising particle burnout during combustion. Fuel preparation equipment, such as pulverisers, are used for crushing pellets into the original particle sizes before the material is pressed into pellets. The method described in this document is intended to characterize particle size distribution of the material contained within fuel pellets and also allows for a relative comparison of pellets of different manufacturing.

This method is based on experience with pellets made from sawdust, wood shavings and milled wood, as well as straw. The method may also be applicable for pellets produced from other solid biofuel materials provided that they can be disintegrated into its constituents in water.

Pellets that are engineered to resist water, e.g. pellets from materials which have undergone some thermal treatments, cannot be characterised by this method.