

## Technical Specification

## **ISO/TS 17595**

## Solid biofuels — Characterization of wood chip fuels — Essential information for producers, suppliers and users

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Biocombustibles solides — Caractérisation des combustibles à base de plaquettes de bois — Informations essentielles pour les producteurs, les fournisseurs et les utilisateurs

ISO/TS 17595:2025

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### Foreword

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This document was prepared by Technical Committee 238, *Solid biofuels and pyrogenic biocarbon*.

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 <u>www.iso.org/members.html</u>.

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### Introduction

For effective use of solid biofuels in heating and power facilities, it is crucial to assess fuel quality starting from the planning stage through daily routine operation. It is equally critical to be familiar with the quality specifications needed for a particular application and to determine key fuel properties using proven and well-validated test methods.

Numerous International Standards exist to characterize various types of solid biofuels, including wood chips, pellets, and briquettes for a variety of residential, commercial, and industrial applications. In addition to providing detailed information on fuel specifications and classes and test methods, these International Standards make it possible to draw up clear and unambiguous fuel supply contracts. They also support the creation of quality assurance and certification systems.

Wood chips are among the most commonly used solid biofuels in space heating applications in commercial and institutional buildings, district heating, light industry and greenhouses. Wood chips specifications and test methods are described in a large number of International Standards, either as stand-alone, or as part of International Standards addressing various types of solid biofuels.

This document is intended primarily for wood chip producers, traders, and owners and operators of energy facilities in small to medium residential, commercial and public sectors. It is based on relevant International Standards. The aim of this document is to provide practical guidance and examples on quality specifications relevant to wood chips, presents guiding principles for assessing the quality of wood chip fuel and gives common procurement approaches. Only those quality properties and their test methods that are critical for both internal quality control purposes and smooth and efficient boiler operation are included in this document.

<u>Clause 4</u> describes general information about the quality of wood chips. <u>Clause 5</u> provides guidance on test methods for the determination of essential physical properties of wood chips. These tests can be performed on a regular basis at the site of the wood chip fuel producer, fuel supplier or energy facility. Sampling and sample preparation are also described in <u>Clause 5</u>. A calculation tool, covering the properties described in <u>Clause 5</u>, is available as an MS Excel document<sup>1</sup>) to assist users in recording, calculating and reporting test results in a consistent manner. <u>Clause 6</u> provides practical information on essential tests that are carried out by external laboratories. <u>Annex A</u> gives an empirical formula to calculate energy content of wood chips. <u>Annex B</u> gives an example of a sampling plan and sampling report. <u>Annex C</u> includes examples of data logging tables that can be used in reporting test results. <u>Annex D</u> shows key information expected to be found in a laboratory report of graded wood chips.

The sampling techniques and test methods described in this document are aligned with the methods given in the corresponding International Standards, with minor modifications to some steps, such as sample size, sampling frequency, number of replicates, or measurement time. This is done to make them more practical for routine testing. As such, the methods described in this document can lead to minor differences in the results when compared with the corresponding International Standards. These differences will not impact the reliability of assessing changes to the properties of wood chips when measured on a relative, day-to-day basis. Boiler operators, owners and fuel producers are encouraged to incorporate them into their regular quality monitoring and control routines.

<sup>1)</sup> Accessible at: <u>https://standards.iso.org/iso/ts/17595/ed-1/en</u>

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