

ELAMUTE TAHKEKÜTTESEADMED. OSA 2-7:
HALUPUUDE JA PELLEETITEGA KÖETAVAD
KOMBINEERITUD SEADMED

Residential solid fuel burning appliances - Part 2-7:
Combination appliances fired by wood logs and pellets

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|--|---|
| <p>See Eesti standard EVS-EN 16510-2-7:2025 sisaldab Euroopa standardi EN 16510-2-7:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 28.05.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p> | <p>This Estonian standard EVS-EN 16510-2-7:2025 consists of the English text of the European standard EN 16510-2-7:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 28.05.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p> |
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EUROPEAN STANDARD

EN 16510-2-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Residential solid fuel burning appliances - Part 2-7: Combination appliances fired by wood logs and pellets

Appareils de chauffage domestiques à combustible solide - Partie 2-7 : Appareils mixtes à bûches et à granulés de bois

Häusliche Feuerstätten für feste Brennstoffe - Teil 2-7: Kombinationsfeuerstätten für Scheitholz und Pellets

This European Standard was approved by CEN on 18 May 2025.

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European foreword

This document (EN 16510-2-7:2025) has been prepared by Technical Committee CEN/TC 295 “Residential solid fuel burning appliances”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by November 2025, and conflicting national standards shall be withdrawn at the latest by February 2027.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

The structure of EN 16510, *Residential solid fuel burning appliances*, is as follows:

- Part 1: *General requirements and test methods*;
- Part 2-1: *Roomheaters*;
- Part 2-2: *Inset appliances including open fires*;
- Part 2-3: *Cookers*;
- Part 2-4: *Independent boilers — Nominal heat output up to 50 kW*;
- Part 2-5: *Slow heat release appliances*;
- Part 2-6: *Mechanically by wood pellets fed roomheaters, inset appliances and cookers*;
- Part 2-7: *Combination appliances fired by wood logs and pellets*.

Other sections of Part 2 will be added to cover residential solid fuel burning appliances not included in parts 2-1 to 2-7.

Subclauses and Figures which are additional to those in EN 16510-1:2022 are numbered starting with 701. Annexes which are additional to those in EN 16510-1:2022 are numbered starting with GA.

For inset pellet/wood appliances and especially their testing, additional information from EN 16510-2-2:2022 is relevant.

For pellet appliances and especially their testing, additional information from EN 16510-2-6:2022 is relevant.

For cookers and especially their testing, additional information from EN 16510-2-3:2022 is relevant.

For appliances according to this document the same additional information regarding instructions as specified in EN 16510-1:2022, Clause 7 for appliances according to EN 16510-2-6:2022 is applicable.

Descriptive features according to EN 16510-1:2022, 4.4 for devices according to EN 16510-2-6:2022 are equally valid for devices according to this document.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

The energy efficiency classification is aligned with Commission Regulation (EU) 2015/1186, Annex II. Upon the revision of Regulation 2015/1186, the standard should be updated to reflect the new classification.

The threshold levels for OGC, CO, NO_x and PM emissions and the threshold levels for the seasonal space heating energy efficiency are aligned with Commission Regulation (EU) 2015/1185, Annex II. Upon the revision of Regulation 2015/1185, the standard should be updated to reflect the new classification.

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1 Scope

This document is applicable to space heaters, inset appliances and cookers intended for mechanical fuelling with wood pellets and for manual fuelling with wood logs. They can be freestanding or inset appliances.

The intended use of the appliances is space heating in residential buildings and can be cooking. They can be fitted with a boiler (integral part of the appliance containing water to be heated up) for the supply of hot water for central heating systems.

These appliances typically use auxiliary energy which is measured in this standard as well. They are operated with natural draught and can be fan-assisted.

NOTE 1 A fan-assisted appliance does still operate under negative pressure in the flue gas system.

For inset appliances and especially their testing additional information can be necessary from EN 16510-2-2:2022.

These appliances burn wood pellets and wood logs only, in accordance with the appliance instructions. They only operate with the firedoors closed.

NOTE 2 These appliances can have an integral fuel hopper or be combined with an external fuel hopper.

These appliances can be fitted with a single or double combustion chamber having a single flue gas outlet.

This document specifies procedures for assessment and verification of constancy of performance (AVCP) of characteristics of combination appliances fired by wood logs and pellets.

This document is not applicable to appliances:

- with boiler intended for water systems having water temperatures above 110°C and 3 bar and for sanitary hot water,
- intended to be used with a pure horizontal exhaust (through the building wall),
- with flue gas condensation in the appliance,
- switching on / off for part load operation,
- with simultaneous wood and pellet operation with a single flue gas outlet,
- with non-automatic pellet loading,
- with single combustion chamber and double flue gas outlet,
- continuous burning appliances.

For clarity, all test methods are addressed in Annex A.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15456:2008, *Heating boilers — Electrical power consumption for heat generators — System boundaries — Measurements*

EN 15804:2012+A2:2019, *Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products*

EN 16510-1:2022, *Residential solid fuel burning appliances — Part 1: General requirements and test methods*

EN 16510-2-2:2022, *Residential solid fuel burning appliances — Part 2-2: Inset appliances including open fires*

EN 16510-2-3:2022, *Residential solid fuel burning appliances — Part 2-3: Cookers*

EN 16510-2-4:2022, *Residential solid fuel burning appliances — Part 2-4: Independent boilers — Nominal heat output up to 50 kW*

EN 16510-2-6:2022, *Residential solid fuel burning appliances — Part 2-6: Mechanically by wood pellets fed roomheaters, inset appliances and cookers*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16510-1:2022, EN 16510-2-2:2022, EN 16510-2-3:2022 and EN 16510-2-6:2022 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

Add the following new clauses:

3.701

simultaneous transient operation

combustion regime which, for a limited period of time, allows the combustion of two types of fuel when switching from one fuel to the other one according to the instruction manual

4 Essential characteristics

4.1 Load bearing capacity

The performance of the appliance in relation to the ability to carry a chimney shall be determined in accordance with EN 16510-1:2022, 4.6.

If for an appliance with an upper outlet the ability to carry a chimney is specified the value of the maximum load shall be given in [kg] as an integer according to EN 16510-1:2022, Table 22, no. 57 (m_{chim}).

4.2 Protection of combustible materials

The performance of the appliance in relation to protection of combustible materials shall be determined in accordance with EN 16510-1:2022, 5.6.

When tested in accordance with EN 16510-1:2022, 5.6, the protection measure(s) as specified according to Table 1 shall be given as minimum distance to combustibles and if appropriate as material type and thickness of protective insulation material.

The protection measures as specified shall be given according to EN 16510-1:2022, Table 22, no. 33, 34, 35, 36, 37, 38, 39 and 41 (d_R , d_S , d_C , d_P , d_F , d_L , d_B , s).