

ELAMUTE TAHKEKÜTTESEADMED. OSA 2-5:
AEGLA SELT SOOJUST ERALDAVAD KÜTTESEADMED

Residential solid fuel burning appliances - Part 2-5:
Slow heat release appliances

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 16510-2-5:2025 sisaldab Euroopa standardi EN 16510-2-5:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 30.04.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 16510-2-5:2025 consists of the English text of the European standard EN 16510-2-5:2025.</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 30.04.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
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EUROPEAN STANDARD

EN 16510-2-5

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2025

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Supersedes EN 15250:2007

English Version

Residential solid fuel burning appliances - Part 2-5: Slow heat release appliances

Appareils de chauffage domestiques à combustible solide - Partie 2-5: Appareils à libération lente de chaleur (SHRA)

Häusliche Feuerstätten für feste Brennstoffe - Teil 2-5: Speicherfeuerstätten

This European Standard was approved by CEN on 7 April 2025.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	4
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	8
4 Characteristics	9
4.1 Load bearing capacity	9
4.2 Protection of combustible materials	9
4.3 Carbon monoxide emission (CO).....	10
4.4 Nitrogen oxides (NO _x) emissions.....	10
4.5 Emission of organic gaseous compounds (OGC).....	11
4.6 Particulate matter (PM) emissions	11
4.7 Safety and accessibility in use	12
4.8 Energy economy and heat retention.....	12
4.9 Environmental sustainability.....	14
5 Descriptive features	16
5.1 Data for potential use with room ventilation systems: type of appliance (in relation to its tightness to the room)	16
5.2 Data for the building's statics: appliance's mass.....	16
5.3 Materials and construction elements.....	16
5.4 Risk of burning fuel falling out.....	17
5.5 Temperature rise in the fuel storage.....	17
5.6 Temperature rise of the operating components	17
5.7 Spillage of flue gases into the room.....	17
5.8 Cleanability	17
5.9 Strength and leak tightness of boiler shells	18
6 Assessment and verification of constancy of performance – AVCP	18
6.1 General.....	18
6.2 Assessment of performance.....	18
6.3 Verification of constancy of performance.....	20
Annex A (normative) Test methods	25
A.1 Test environment	25
A.2 Test assembly.....	25
A.3 Measurement equipment.....	28
A.4 Test procedures.....	29
A.5 Test results.....	38
A.6 Calculation methods	38
A.7 Test report.....	40
Annex B (normative) Test fuels and recommended fuels	41

Annex C (normative) Arrangement for measuring the leakage rate	42
Annex D (normative) Measuring procedure for nitrogen oxides (NO_x)	43
Annex E (normative) Measuring procedure for organic gaseous carbon (OGC).....	44
Annex F (normative) Measurement procedure for particulate matter (PM).....	45
Annex G (normative) Guideline for the characteristics to be considered to decide on families of appliances.....	46
Annex E A (normative) Calculation of an approximate heat release curve against time	48
Annex ZA (informative) Relationship of this European Standard with Regulation (EU) No. 305/2011.....	51

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European foreword

This document (EN 16510-2-5:2025) 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 October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

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 supersedes EN 15250:2007.

EN 16510-2-5 includes the following significant technical changes with respect to EN 15250:2007:

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 scope is updated with space heating appliances in residential buildings that can be fitted with a boiler or heat exchanger (integral part of the appliance containing water to be heated up) for the supply of hot water for central heating systems integral boiler or heat exchanger water heat output
- Measurement methods for NO_x, hydrocarbon and particulate matter emissions for solid fuel burning appliances;
- specifications for classification of solid fuel burning appliances and system boundaries for room sealed appliances;
- requirements for the safety of solid fuel burning appliances with water-bearing components added;
- Annex ZA updated according to requirements of M/577;
- Assessment and verification of constancy of performance – AVCP 3+ added;
- energy efficiency and energy class labelling and seasonal space heating efficiency added;
- requirements for environmental sustainability added.

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

For relationship with (EU) Regulation 305/2011, 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*.

Other sections of Part 2 will be added to cover residential solid fuel burning appliances not included in parts 2-1 to 2-6.

Subclauses and Figures which are additional to those in EN 16510-1:2022 are numbered starting with 501. Annexes which are additional to those in EN 16510-1:2022 are numbered starting with EA.

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 (EU) 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 slow heat release appliances for solid fuel (freestanding manually fuelled intermittent burning slow heat release appliances (SHRA) having heat storage capacity such that they can provide heat and release it for an extended period after the fire has gone out).

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

These slow heat release appliances may be supplied either as an assembled appliance or as a pre-designed unit consisting of prefabricated components designed to be built on site in accordance with the specified assembly instructions.

These appliances can burn one or more types of the following solid fuels as specified:

- wood logs;
- compressed untreated wood;
- wood pellets;
- lignite briquettes;
- solid mineral fuels;
- peat briquettes.

This document is not applicable to:

- mechanically fed appliances
- appliances with fan assisted combustion air
- one off installations

This document specifies procedures for assessment and verification of constancy of performance (AVCP) of characteristics of solid fuel burning slow heat release appliances.

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

EN 993-1:2018, *Methods of test for dense shaped refractory products - Part 1: Determination of bulk density, apparent porosity and true porosity*

EN 993-10:2020, *Methods of test for dense shaped refractory products - Part 10: Determination of permanent change in dimensions on heating*

EN 993-12:1997, *Methods of test for dense shaped refractory products - Part 12: Determination of pyrometric cone equivalent (refractoriness)*

EN 1936:2006, *Natural stone test methods - Determination of real density and apparent density, and of total and open porosity*

EN 303-5:2021,¹ *Heating boilers - Part 5: Heating boilers for solid fuels, manually and automatically stoked, nominal heat output of up to 500 kW - Terminology, requirements, testing and marking*

EN 14597:2012, *Temperature control devices and temperature limiters for heat generating systems*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 16510-1:2022 and the following 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/>

3.14

EN 16510-1:2022 definition 3.14 is replaced in this document with following:

batch charge

for slow heat release appliances proportion of the test load as specified for slow heat release appliances that can be added at specified intervals during the test period of the performance test at nominal heat output

3.501

total energy

thermal energy of slow heat release appliance transferred to the room over whole heat release period of heating cycle, expressed in [kWh]

3.502

test load

mass of test fuel specified for the burning period

Note 1 to entry: The test load can be added as batch charges if this is specified in the appliance instructions.

3.503

burning period

period when test load is burned in SHRA

3.504

heat release period

period when the SHRA provides the heat by radiation and convection from the surface of the appliance into the space where the appliance is installed

¹ Impacted by EN 303-5:2021+A1:2022.