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

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/25

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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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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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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
Euro	pean foreword	4
Introduction		6
1	Scope	7
2	Normative references	
3	Terms and definitions	
4	Characteristics	
4.1	Load bearing capacity	
4.2	Protection of combustible materials	
4.3	Carbon monoxide emission (CO)	
4.4	Nitrogen oxides (NO _x) emissions	
4.5	Emission of organic gaseous compounds (OGC)	
4.6	Particulate matter (PM) emissions	
4.7	Safety and accessibility in use	
4.8	Energy economy and heat retention	
4.9	Environmental sustainability	
	•	
5	Descriptive features	
5.1	Data for potential use with room ventilation systems: type of appliance (in	
	its tightness to the room)	
5.2	Data for the building's statics: appliance's mass	
5.3	Materials and construction elements	
5.4	Risk of burning fuel falling out	
5.5	Temperature rise in the fuel storage	
5.6	Temperature rise of the operating components	
5.7	Spillage of flue gases into the room	17
5.8	Cleanability	
5.9	Strength and leak tightness of boiler shells	18
6	Assessment and verification of constancy of performance – AVCP	18
6.1	General	
6.2	Assessment of performance	_
6.3	Verification of constancy of performance	
	ex A (normative) Test methods	
A.1	Test environment	
A.1 A.2		
	Test assembly	
A.3	Measurement equipment	
A.4	Test procedures	
A.5	Test results	
A.6	Calculation methods	
A.7	Test report	
Anne	ex 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 (NOx)	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 of appliances	
Annex E A (normative) Calculation of an approximate heat release curve against	ime 48
Annex ZA (informative) Relationship of this European Standard with Regulatio	. ,

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:

- 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, NOx 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.

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 predesigned unit consisting of prefabricated components designed to be built on site in accordance with thespecified 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

koniec náhľadu – text ďalej pokračuje v platenej verzii STN

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¹ Impacted by EN 303-5:2021+A1:2022.