BS EN 16510-2-1:2022

BSI Standards Publication

Residential solid fuel burning appliances

Part 2-1: Roomheaters

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National foreword

This British Standard is the UK implementation of EN 16510-2-1:2022. It supersedes BS EN 13240:2001+A2:2004 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee RHE/28, Domestic solid mineral fuel appliances.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Häusliche Feuerstätten für feste Brennstoffe - Teil 2-1: Raumheizer

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European foreword

This document (EN 16510-2-1:2022) 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of an identical text or by endorsement, at the latest by June 2023, and conflicting national standards shall be withdrawn at the latest by November 2025.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 13240:2001 as amended and corrected. In relation to EN 13240:2001 as amended and corrected the following changes have been made:

— 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;

— 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 and the European Free Trade Association.

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.

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Subclauses and Figures which are additional to those in EN 16510-1:2022 are numbered starting with 101. Annexes which are additional to those in EN 16510-1:2022 are numbered starting with AA.

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.

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1 Scope

This document is applicable to roomheaters for solid fuel (freestanding or inset solid fuel burning local space heating products that operate with fire doors either as closed only or as closed or open; insets without functional modification).

The intended use of the appliances is space heating in residential buildings. 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 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 appliances with fan assisted combustion air or appliances that are mechanically fed.

This document specifies procedures for assessment and verification of constancy of performance (AVCP) of characteristics of solid fuel burning roomheaters.

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.

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*

3 Terms and definitions

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

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4 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 is to 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 combustible materials and if appropriate as material type and thickness of protective insulation material.

The protection measures as specified shall be given in [mm] as an integer 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).

Table 1 — Protection of combustible materials

Protection measure	Declared clearance distance to combustible material or thickness of protective insulation material [mm]	Protective insulation material if any
Minimum distance to combustible materials - bottom (d_B)		-
Minimum distance to combustible materials – floor in front (d_F)		-
Minimum distance to combustible materials – ceiling (d_C)		-
Minimum distance to combustible materials – rear (d_R)		-
Minimum distance to combustible materials – side (d_S)		-
Minimum distance to combustible materials – side radiation area (d_L)		-
Minimum distance to adjacent combustible materials (e.g. furniture) (d_P)		-
Protective insulation material (s)		

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