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English Version

Residential solid fuel burning appliances - Part 2-2: Inset appliances including open fires

Appareils de chauffage domestiques à combustible
solide - Partie 2-2 : Foyers ouverts et inserts

Häusliche Feuerstätten für feste Brennstoffe - Teil 2-2:
Kamineinsätze einschließlich offene Kamine

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

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European foreword

This document (prEN 16510-2-2:2021) has been prepared by Technical Committee CEN/TC 295 “Residential solid fuel burning appliances”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document together with EN 16510-1:2021 will supersede EN 13229:2001 as amended and corrected.

This document has been prepared under a standardization request given to CEN/CENELEC 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.

This Part 2-2 supplements or modifies the corresponding clauses in prEN 16510-1:2021, so as to convert that publication into the European Standard: *Residential solid fuel burning appliances – Requirements and test methods for roomheaters.*

This document is expected to be used in conjunction with prEN 16510-1:2021. This document refers to Clauses of prEN 16510-1:2021 or adapts Clauses by stating “with the following modification”, “with the following addition”, “is replaced by the following” or “shall not be applicable” in the corresponding Clause. This document adds Clauses or Subclauses to the structure of prEN 16510-1:2021 which are particular to this document.

Subclauses and Figures which are additional to those in prEN 16510-1:2021 are numbered starting with 201. Annexes which are additional to those in prEN 16510-1:2021 are numbered starting with BA.

1 Scope

This document is applicable to hand fed solid fuel fired inset appliances, with or without functional modification, that operate without fire doors or operate with fire doors either as closed only or as closed or open, and also includes open fires fired by solid fuel. The surround of these appliances are integrated with the building with the exception of free-standing appliances and those inset appliances which are installed into a fireplace recess or enclosure. These appliances provide heat into the space where they are installed. Additionally, where fitted with a boiler, they also provide domestic hot water and/or central heating.

These appliances can burn one or more types of the following solid fuels in accordance with the appliance manufacturer's instructions:

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

This document also covers 'Kachelofen' and 'Putzofen' inset appliances, having nominal heat outputs up to 15 kW.

This document is not applicable to appliances with fan assisted combustion air or appliances that are mechanically fed.

Open fireplace components such as a bottomgrate with associated firefront which the manufacturer supplies for installation into an existing heat resistant, insulated firebox are not covered by this document.

This document is used in conjunction with prEN 16510-1:2021 of which it is an integral part.

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.

prEN 16510-1:2021, 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 prEN 16510-1:2021 apply.

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

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

4 Descriptive features

prEN 16510-1:2021, Clause 4, shall be applicable with the following modifications.

4.4.5 Flueways

prEN 16510-1:2021, 4.4.5, shall be applicable with the following modification.

Addition after 1st paragraph:

For Kachelöfen or Putzöfen inset appliances the flueways shall be tight and shall have tight cleaning openings, which allow a proper cleaning. Metal flueways shall be made of steel as given in prEN 16510-1:2021, Table 3, with a minimum thickness of 2 mm or cast iron as given in prEN 16510-1:2021, Table 4, with a thickness of 4 mm or of austenitic stainless steel with a thickness of 1 mm. Fireclay bricks, plates or components of flueways shall withstand all mechanical, chemical and thermal stresses under normal operation conditions.

4.4.7 Ashpan and ash removal

prEN 16510-1:2021, 4.4.7, shall be applicable with the following modification.

Addition after 1st paragraph:

Kachelöfen or Putzöfen inset appliances designed to burn coal as well as wood shall be equipped with an ashpan having a minimum volume capacity of 0,8 dm³ per kW of nominal heat output. For Kachelöfen' or Putzöfen' insets which are specifically designed to burn wood logs and wood briquettes, and if they are equipped with an ashpan, the minimum volume capacity of this ashpan shall be 0,5 dm³ per kW of nominal heat output.

4.4.8 Bottomgrate

prEN 16510-1:2021, 4.4.8, shall be applicable with the following modification.

Addition after 1st paragraph:

Grate devices fitted to Kachelöfen or Putzöfen inset appliances shall be easy to de-ash without undue effort.

5 Appliance Performance requirements in relation to safety

prEN 16510-1:2021, Clause 5, shall be applicable.

6 Appliances Performance requirements in relation to the appliance operation

prEN 16510-1:2021, Clause 6, shall be applicable with the following modification.

6.4.1 General

prEN 16510-1:2021, 6.4.1, shall be applicable with the following modification.

Addition after 1st paragraph:

For Kachelöfen and Putzöfen inset appliances the manufacturer's declared efficiency value shall be equal to or exceed 75 %.

For open fires without boiler the manufacturer's declared efficiency value shall be equal to or exceed 30 %.

For open fires with boiler the manufacturer's declared efficiency value shall be equal to or exceed 50 %.