

**Radiaatorid ja konvektorid. Osa 2:
Katsemeetodid ja hindamine**

Radiators and convectors - Part 2: Test methods
and rating

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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EUROPEAN STANDARD

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English version

**Radiators and convectors - Part 2: Test methods
and rating**

Radiateurs et convecteurs - Partie 2: Méthodes
d'essai et d'évaluation

Radiatoren und Konvektoren - Teil 2:
Prüfverfahren und Leistungsangabe

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 130 "Space heating appliances without integral heat sources" of which the secretariat is held by UNI.

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of an identical text or by endorsement, at the latest by January 1997, and conflicting national standards shall be withdrawn at the latest by January 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

0 Introduction

This European Standard results from the recognition that the heating appliances falling into the field of application hereinafter stated are traded on the basis of their thermal output.

To evaluate and compare different appliances it is therefore necessary to refer to a single stipulated value, hereinafter called the standard thermal output.

The standard thermal output is a defined value taken from the characteristic equation.

The pre-requisites of the standard thermal output, as defined by this European standard, are the following :

- to be representative of the actual output of the appliance;
- to be reproducible within the tolerances defined by this European Standard, taking into account the state of measuring techniques;
- to be representative of the thermal output, obtainable under the same test conditions, of any identical sample taken out of the current production (within the tolerances defined by this European Standard taking into account the state of measuring techniques and methods of manufacture).

This European Standard of radiators and convectors consists of the following parts:

- Part 1: Technical specifications and requirements
- Part 2: Testing and rating methods
- Part 3: Evaluation of conformity

1 Scope

This European Standard defines procedures for determining the standard thermal output of the heating appliances fed with water or steam at temperatures below 120°C, supplied by a remote heat source.

This European Standard specifies the laboratory arrangements and testing methods to be adopted, the admissible tolerances, the criteria for selecting the samples to be tested and for verifying the conformity of the current production with the samples tested at the initial test.

This European Standard also defines the additional common data that the manufacturer shall provide to the trade in order to ensure the correct application of the products.

This European Standard does not apply to independent heating appliances.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 442-1	Radiators and convectors - Part 1: Technical specifications and requirements
EN 10088-1	Stainless steels - Part 1: List of stainless steels
EN 45001	General criteria for the operation of testing laboratories
EN 45002	General criteria for the assessment of testing laboratories
ISO 31-4	Quantities and units: Part 4: Heat
ISO 5725	Precision of test methods - Determination of repeatability and reproducibility for a standard test method by inter-laboratory tests

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1 heating appliance: A device having the purpose of transferring heat in order to provide specific temperature conditions inside buildings .

3.2 independent heating appliance: A self-contained heating appliance which does not need to be connected to a remote heat source (e.g. a boiler) as it contains its own heat source (e.g. gas fired appliances, electric appliances, heat pump appliances).

3.3 radiator: A heating appliance which emits heat by free convection and radiation.
Radiators can be produced with different materials (e.g. steel, aluminium, cast-iron) and with different designs (e.g. plate type, column type, tube type)