
Gospodinjski in podobni električni aparati – Postopek preskušanja za ugotavljanje zvočnega hrupa v zraku – 2-10. del: Posebne zahteve za električne štedilnike, pečice, ražnje, mikrovalovne pečice in kombinacijo le-teh

Household and similar electrical appliances – Test code for the determination of airborne acoustical noise - Part 2-10: Particular requirements for electric cooking ranges, ovens, grills, microwave ovens and any combination of these

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**Household and similar electrical appliances –
Test code for the determination of airborne acoustical noise
Part 2-10: Particular requirements for electric cooking ranges, ovens,
grills, microwave ovens and any combination of these
(IEC 60704-2-10:2004)**

Appareils électrodomestiques et analogues –
Code d'essai pour la détermination du bruit aérien
Partie 2-10: Règles particulières pour les cuisinières, fours et grills électriques, fours micro-ondes et toute combinaison de ceux-ci
(CEI 60704-2-10:2004)

Elektrische Geräte für den Hausgebrauch und ähnliche Zwecke –
Prüfvorschrift für die Bestimmung der Luftschallemission
Teil 2-10: Besondere Anforderungen für elektrische Herde, Backöfen, Grills, Mikrowellengeräte und alle Kombinationen davon
(IEC 60704-2-10:2004)

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CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 59K/82/FDIS, future edition 1 of IEC 60704-2-10, prepared by SC 59K, Ovens and microwave ovens, cooking ranges and similar appliances, of IEC TC 59, Performance of household electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60704-2-10 on 2004-07-01.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2005-05-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2007-07-01

This Part 2-10 is intended to be used in conjunction with EN 60704-1:1997.

This Part 2-10 supplements or modifies the corresponding clauses of EN 60704-1. When a particular subclause of Part 1 is not mentioned in this Part 2-10, that subclause applies as far as is reasonable. Where this Part 2-10 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Subclauses or figures which are additional to those in Part 1 are numbered starting from 101. Additional annexes are lettered AA, BB, etc.

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Endorsement notice

The text of the International Standard IEC 60704-2-10:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60350	NOTE	Harmonized as EN 60350:1999 (not modified).
IEC 60705	NOTE	Harmonized as EN 60705:1999 (not modified).
CISPR 11	NOTE	Harmonized as EN 55011:1998 (modified).
ISO 7235	NOTE	Harmonized as EN ISO 7235:1995 (not modified).

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60704-2-10

Première édition
First edition
2004-04

**Appareils électrodomestiques et analogues –
Code d'essai pour la détermination
du bruit aérien –**

Partie 2-10:

**Règles particulières pour les cuisinières,
fours et grils électriques, fours micro-ondes
et toute combinaison de ceux-ci**

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**Household and similar electrical appliances –
Test code for the determination of airborne
acoustical noise –**

Part 2-10:

**Particular requirements for electric cooking
ranges, ovens, grills, microwave ovens
and any combination of these**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES –
TEST CODE FOR THE DETERMINATION OF
AIRBORNE ACOUSTICAL NOISE –**

**Part 2-10: Particular requirements for electric cooking ranges,
ovens, grills, microwave ovens and any combination of these**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60704-2-10 has been prepared by subcommittee 59K: Ovens and microwave ovens, cooking ranges and similar appliances, of IEC technical committee 59: Performance of household electrical appliances.

The text of this publication is based on the following documents:

FDIS	Report on Voting
59K/82/FDIS	59K/88/RDV

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 60704 consists of the following parts, under the general title *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise*:

Part 1: General requirements

Part 2: Particular requirements

Part 3: Procedure

This Part 2-10 is intended to be used in conjunction with the second edition (1997) of IEC 60704-1: *Household and similar electrical appliances – Test code for the determination of airborne acoustical noise – Part 1: General requirements*.

The relevant text of Part 1 as amended by this publication establishes the test code for electric cooking ranges, ovens, grills, microwave ovens and any combination of these.

This Part 2-10 supplements or modifies the corresponding clauses in IEC 60704-1. When a particular subclause of Part 1 is not mentioned in this Part 2-10, that subclause is applicable as far as reasonable. Where this standard states "addition", "modification" or "replacement", the relevant requirements, test specifications or explanatory matter in Part 1 should be adapted accordingly.

Subclauses or figures that are additional to those in Part 1 are numbered starting from 101. Additional annexes are lettered AA, BB, etc.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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- reconfirmed; <https://standards.iteh.ai/catalog/standards/sist/6d95e4c3-5698-4110-bfcb-b27f63faf043/sist-en-60704-2-10-2005>
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

The measuring conditions specified in this Part 2-10 provide for sufficient accuracy in determining the noise emitted and comparing the results of measurements taken by different laboratories, whilst simulating as far as possible the practical use of electric cooking ranges, ovens, grills, microwave ovens and any combination of these.

It is recommended to consider the determination of noise levels as part of a comprehensive testing procedure covering many aspects of properties and performance of electric cooking ranges, hobs, ovens, grills, microwave ovens and any combination of these.

NOTE As stated in the introduction to IEC 60704-1, this test code is concerned with airborne noise only.

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HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES – TEST CODE FOR THE DETERMINATION OF AIRBORNE ACOUSTICAL NOISE –

Part 2-10: Particular requirements for electric cooking ranges, ovens, grills, microwave ovens and any combination of these

1 Scope and object

This clause of Part 1 is applicable except as follows.

1.1 Scope

1.1.1 General

Replacement:

These particular requirements apply to electric cooking ranges, ovens, grills, microwave ovens and any combination of these, for household and similar use.

NOTE These particular requirements do not apply to hobs due to lack of standardised load (pans) representative of normal use and ensuring a good repeatability of tests. For these appliances, the loading and operating requirements are under consideration. (standards.iteh.ai)

These particular requirements do not apply to appliances or parts of appliances that use gas energy.

Other limitations for the use of this test code are given in 1.1.1 of IEC 60704-1.

1.1.2 Types of noise

Replacement:

ISO 3743-1, ISO 3743-2 and ISO 3744 can be used for measuring noise emitted by electric cooking ranges, ovens, grills, microwave ovens and any combination of these.

1.1.3 Size of the source

Replacement:

The method specified in ISO 3744 is applicable to noise sources of any size. When applying ISO 3743-1 and ISO 3743-2, care should be taken that the maximum size of the appliance under test fulfils the requirements specified in 1.3 of ISO 3743-1 and ISO 3743-2.

1.2 Object

Addition:

Requirements for the declaration of noise emission values are not within the scope of this standard.

NOTE For determining and verifying noise emission values, declared in product specifications, see IEC 60704-3.

1.3 Measurement uncertainty

Replacement:

The estimated values of standard deviations of sound power levels determined according to this standard are as follows.

Standard deviation dB	
σ_r (repeatability)	σ_R (reproducibility)
0,4	1,0

Addition:

1.101 Standard deviation for declaration and verification

For the purpose of determining and verifying declared noise emission values according to IEC 60704-3, the following values of standard deviation apply.

Standard deviation dB		
σ_P (production)	σ_t (total)	σ_M (reference)
1,0 – 1,7	1,4 – 2,0	2,0

2 Normative references

[SIST EN 60704-2-10:2005](https://standards.iteh.ai/catalog/standards/sist/6d95e4c3-5698-4110-bfcb-b27f63faf043/sist-en-60704-2-10-2005)

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This clause of Part 1 is applicable.

3 Terms and definitions

This clause of Part 1 is applicable except as follows.

Addition:

3.101

cooking range

appliance having a hob and at least one oven. It may incorporate a grill

[IEC 60350, definition 3.1]

3.102

hob

appliance or part of an appliance which incorporates one or more cooking zones

NOTE A hob is also known as a cooktop.

[IEC 60350, definition 3.2]

3.103

oven

appliance or compartment of a cooking range in which food is cooked by radiation, by natural convection, by forced-air circulation, by steam or by a combination of these heating methods