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**Guide for the determination of thermal endurance properties of electrical insulating materials - Part 4: Ageing ovens - Section 1: Single-chamber ovens (IEC 60216-4-1:1990)**

Guide for the determination of thermal endurance properties of electrical insulating materials -- Part 4: Ageing ovens -- Section 1: Single-chamber ovens

Leitlinie zur Bestimmung der thermischen Langzeiteigenschaften von Elektroisolierstoffen -- Teil 4: Alterungswärmeschränke -- Hauptabschnitt 1: Einzelkammerwärmeschränke (standards.iteh.ai)

Guide pour la détermination des propriétés d'endurance thermique de matériaux isolants électriques -- Partie 4: Etuves de vieillissement -- Section 1: Etuves à une seule chambre

**Ta slovenski standard je istoveten z: HD 611.4.1 S1:1992**

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**ICS:**

29.035.01	Izolacijski materiali na splošno	Insulating materials in general
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**SIST HD 611.4.1 S1:1998****en**

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HARMONIZATION DOCUMENT

HD 611.4.1 S1

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

July 1992

UDC 621.315.61:620.193.94

Descriptors: Insulating material, resistance to heat, ageing test, thermal endurance test, oven

## ENGLISH VERSION

Guide for the determination of thermal endurance properties of electrical insulating materials  
Part 4: Ageing ovens  
Section One: Single-chamber ovens  
(IEC 216-4-1:1990)

Guide pour la détermination des propriétés d'endurance thermique de matériaux isolants électriques

Quatrième partie: Etuves de vieillissement  
Section 1: Etuves à une seule chambre  
(CEI 216-4-1:1990)

Leitlinie zur Bestimmung der thermischen Langzeiteigenschaften von Elektroisolierstoffen

Teil 4:  
Alterungswärmeschränke  
Hauptabschnitt 1:  
Einzelkammerwärmeschränke  
(IEC 216-4-1:1990)

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SIST HD 611.4.1 S1:1998

This Harmonization Document was approved by CENELEC on 1992-06-16. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

## 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

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Ref. No. HD 611.4.1 S1:1992 E

FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 216-4-1:1990 could be accepted without textual changes, has shown that no common modifications were necessary for the acceptance as Harmonization Document.

The reference document was submitted to the CENELEC members for formal vote and was approved by CENELEC as HD 611.4.1 S1 on 16 June 1992.

The following dates were fixed:

- latest date of announcement  
of the HD at national level (doa) 1992-12-01
- latest date of publication of  
a harmonized national standard (dop) 1993-06-01
- latest date of withdrawal of  
conflicting national standards (dow) 1993-06-01

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

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ENDORSEMENT NOTICE

SIST HD 611.4.1 S1:1998

The text of the International Standard IEC 216-4-1:1990 was approved by CENELEC as a European Standard without any modification.



## ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD  
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC <u>Publication</u>	<u>Date</u>	<u>Title</u>	<u>EN/HD</u>	<u>Date</u>
335	Series	Safety of household and similar electrical appliances	EN 60335	Series
811-1-2	1985	Common test methods for insulating and sheathing materials of electric cables - Part 1: Methods for general application - Section two: Thermal ageing methods	HD 505.1.2 S2*	1991

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\* HD 505.1.2 S2 includes A1:1989 to IEC 811-1-2

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

GUIDE FOR THE DETERMINATION OF THERMAL ENDURANCE  
PROPERTIES OF ELECTRICAL INSULATING MATERIALSPart 4: Ageing ovens  
Section 1: Single-chamber ovens

## FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

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## PREFACE

This standard has been prepared by Sub-Committee 15B: Endurance tests, of IEC Technical Committee No. 15: Insulating materials.

The former publication 216-4 (1980), second edition, is cancelled. The third edition of the publication 216-4-1 deals with a different subject, following the reorganized structure of the IEC 216 series. See introduction page 5.

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

Six Months' Rule	Report on Voting
15B(C0)72	15B(C0)78

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

*The following IEC publications are quoted in this standard:*

Publications Nos. 335: Safety of household and similar electrical appliances.

811-1-2 (1985): Common test methods for insulating and sheathing materials of electric cables, Part 1: Methods for general application, Section Two - Thermal ageing methods.



## GUIDE FOR THE DETERMINATION OF THERMAL ENDURANCE PROPERTIES OF ELECTRICAL INSULATING MATERIALS

### Part 4: Ageing ovens Section 1: Single-chamber ovens

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#### Introduction

The Publication 216, Guide for the determination of thermal endurance properties of electrical insulating materials, is composed of several parts:

- Part 1: General guidelines for ageing procedures and evaluation of test results (IEC Publication 216-1).
- Part 2: Choice of test criteria (IEC Publication 216-2).
- Part 3: Instructions for calculating thermal endurance characteristics (IEC Publication 216-3).
- Part 4: Ageing ovens (IEC Publication 216-4).
- Part 5: Guidelines for application of thermal endurance characteristics (IEC Publication 216-5).

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*Note.*- This work may be continued. For revisions and new parts, see the current catalogue of IEC publications for an up-to-date list.

#### 1. Scope

This specification covers minimum requirements for ventilated and electrically heated single-chamber ovens, with or without forced air circulation, for thermal endurance evaluation of electrical insulation. It covers ovens designed to operate over all or part of the temperature range from 20 °C above ambient to 500 °C. It gives acceptance tests and in-service monitoring tests for ageing ovens.

*Note.*- Requirements for multiple-chamber ovens are under consideration.