
Guide for the determination of thermal endurance properties of electrical insulating materials - Part 5: Guidelines for thermal endurance characteristics (IEC 60216-5:1990)

Guide for the determination of thermal endurance properties of electrical insulating materials -- Part 5: Guidelines for the application of thermal endurance characteristics

Richlinie zur Bestimmung der thermischen Langzeiteigenschaften von Elektroisolierstoffen -- Teil 5: Leitfaden für die Anwendung von thermischen Langzeit-Kennwerten

Guide pour la détermination des propriétés d'endurance thermique de matériaux isolants électriques -- Partie 5: Guide pour l'utilisation des caractéristiques d'endurance thermique

Ta slovenski standard je istoveten z: HD 611.5 S1:1992

ICS:

29.035.01	Izolacijski materiali na splošno	Insulating materials in general
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SIST HD 611.5 S1:1998**en**

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UDC 621.315.61:620.193.94

Descriptors: Insulating material, resistance to heat, thermal endurance test, application of characteristics

ENGLISH VERSION

Guide for the determination of thermal endurance properties of electrical insulating materials
Part 5: Guidelines for the application of thermal endurance characteristics
(IEC 216-5:1990)

Guide pour la détermination des propriétés d'endurance thermique de matériaux isolants électriques
Cinquième partie: Guide pour l'utilisation des caractéristiques d'endurance thermique
(CEI 216-5:1990)

Leitlinie zur Bestimmung der thermischen Langzeiteigenschaften von Elektroisolierstoffen
Teil 5: Leitfaden für die Anwendung von thermischen Langzeit-Kennwerten
(IEC 216-5:1990)

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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

FOREWORD

The CENELEC questionnaire procedure, performed for finding out whether or not the International Standard IEC 216-5:1990 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 611.5 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
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The text of the International Standard IEC 216-5:1990 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 Publication -----	Date -----	Title -----	EN/HD -----	Date -----
216		Guide for the determination of thermal endurance properties of electrical insulating materials		
216-1	1990	Part 1: General guidelines for ageing procedures and evaluation of test results	HD 611.1 S1	1992
216-3		Part 3: Instructions for calculating thermal endurance characteristics		
216-3-1	1990	Section 1: Calculations using mean values of normally distributed complete DATA	HD 611.3.1 S1	1992
611	1978	Guide for the preparation of test procedures for evaluating the thermal endurance of electrical insulation systems	-	-

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RAPPORT
TECHNIQUE
TECHNICAL
REPORT

CEI
IEC
216-5

Première édition
First edition
1990-04

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

Cinquième partie:
Guide pour l'utilisation des caractéristiques
d'endurance thermique

<https://standards.iteh.ai/catalog/standards/sist/4dc611cd-23fa-42bd-9735-03902a7932a1/sist-hd-611-5-s1-1998>

Guide for the determination of thermal
endurance properties of electrical
insulating materials

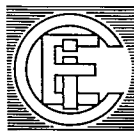
Part 5:
Guidelines for the application of thermal
endurance characteristics

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 5: Guidelines for the application of thermal endurance characteristics

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.

PREFACE

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

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

Six Months' Rule	Report on Voting
15B(CO)66	15B(CO)74

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

The following IEC publications are quoted in this standard:

Publications Nos. 216:—	Guide for the determination of thermal endurance properties of electrical insulating materials.
216-1 (1990):	Part 1: General guidelines for ageing procedures and evaluation of test results.
216-3:—	Part 3: Instructions for calculating thermal endurance characteristics.
216-3-1 (1990):	Section One – Calculations using mean values of normally distributed complete data.
611 (1978):	Guide for the preparation of test procedures for evaluating the thermal endurance of electrical insulation systems.

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

Part 5: Guidelines for the application of thermal endurance characteristics

INTRODUCTION

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).

Note.— This work may be continued. For revisions and new parts, see the current catalogue of IEC publications for an up-to-date list. <https://standards.iteh.ai/catalog/standards/sist/4dc611cd-231a-426d-9755-059a2a49a9ff/sist-hd-611-5-s1-1998>

Parts 1 to 4 describe in detail how thermal endurance characteristics of electrical insulating materials are derived. Part 5 suggests ways in which the manufacturer of electrotechnical equipment might consider such characteristics when designing equipment insulation.

The situation in which the reported characteristics convey exactly the information sought is exceptional. Normally, this information has to be inferred from the available knowledge of thermal endurance. For that purpose, this part gives pertinent guidelines which are based on a specific evaluation method. The method may be applicable also in cases outside the scope of this part.

1. Scope and object

This part gives guidelines for assessing the suitability of electrical insulating materials and simple combinations thereof in specific insulation designs when thermal endurance is the principal concern.

A method of evaluation is given to carry out the required projections from the available thermal endurance characteristics when they do not directly or exactly convey the information sought. The projections are made from the experimentally determined TI or RTI using the halving interval (HIC) with appropriate multipliers whose derivation is described.