SLOVENSKI STANDARD
SIST EN IEC 60370:2018

01-maj-2018

Nadomešča:
SIST HD 570 S1:1998

Postopek za preskušanje toplotne vzdržljivosti izolacijskih smol in premazov, namenjenih za impregnacijo - Metode z električnim prebojem (IEC 60370:2017)

Test procedure for thermal endurance of insulating resins and varnishes for impregnation purposes - Electric breakdown methods (IEC 60370:2017)

ICS:

29.035.01	Izolacijski materiali na splošno	Insulating materials in general

SIST EN IEC 60370:2018 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60370

March 2018

ICS 29.035.01

Supersedes HD 570 S1:1990

English Version

Test procedure for thermal endurance of insulating resins and varnishes for impregnation purposes - Electric breakdown methods (IEC 60370:2017)

Méthode d'essai pour l'évaluation de l'endurance thermique des résines et vernis isolants d'imprégnation - Méthodes de claquage électrique (IEC 60370:2017)

Prüfverfahren zur Beurteilung des thermischen Langzeitverhaltens von Isolierharzen und -lacken für Imprägnierungen - Elektrische Durchschlagmethoden (IEC 60370:2017)

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

The text of document 15/812/FDIS, future edition 2 of IEC 60370, prepared by IEC/TC 15 "Solid electrical insulating materials" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60370:2018.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2018-10-17
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2021-01-17

This document supersedes HD 570 S1:1990.

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Endorsement notice

The text of the International Standard IEC 60370:2017 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 60455-2	NOTE	Harmonized as EN 60455-2.
IEC 60464-2	NOTE	Harmonized as EN 60464-2.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60212	-	Standard conditions for use prior to and during the testing of solid electrical insulating materials	EN 60212	-
IEC 60216	series	Electrical insulating materials - Thermal endurance properties	EN 60216	series
IEC 60216-4-1	-	Electrical insulating materials - Thermal endurance properties -- Part 4-1: Ageing ovens - Single-chamber ovens	EN 60216-4-1	-
IEC 60216-4-2	-	Electrical insulating materials - Thermal endurance properties -- Part 4-2: Ageing ovens - Precision ovens for use up to 300 °C	EN 60216-4-2	-
IEC 60216-4-3	-	Electrical insulating materials - Thermal endurance properties -- Part 4-3: Ageing ovens - Multi-chamber ovens	EN 60216-4-3	-
IEC 60243-1	-	Electric strength of insulating materials - Test methods -- Part 1: Tests at power frequencies	EN 60243-1	-
IEC 60455-3-5	-	Resin based reactive compounds used for electrical insulation -- Part 3: Specifications for individual materials -- Sheet 5: Unsaturated polyester based impregnating resins	EN 60455-3-5	-
IEC 60464-3-2	-	Varnishes used for electrical insulation -- Part 3: Specifications for individual materials -- Sheet 2: Hot curing impregnating varnishes	EN 60464-3-2	-
IEC 60641-3-1	-	Pressboard and presspaper for electrical purposes -- Part 3: Specifications for individual materials -- Sheet 1: Requirements for pressboard, types B.0.1, B.0.3, B.2.1, B.2.3, B.3.1, B.3.3, B.4.1, B.4.3, B.5.1, B.5.3 and B.6.1	EN 60641-3-1	-
ISO 2078	-	Textile glass - Yarns - Designation	EN ISO 2078	-
ISO 2113	-	Reinforcement fibres - Woven fabrics - Basis for a specification	-	-

IEC 60370

Edition 2.0 2017-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Test procedure for thermal endurance of insulating resins and varnishes for impregnation purposes – Electric breakdown methods

Méthode d'essai pour l'évaluation de l'endurance thermique des résines et vernis isolants d'imprégnation – Méthodes de claquage électrique

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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ELECTROTECHNIQUE
INTERNATIONALE

ICS 29.035.01

ISBN 978-2-8322-5108-9

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TEST PROCEDURE FOR THERMAL ENDURANCE OF INSULATING RESINS AND VARNISHES FOR IMPREGNATION PURPOSES – ELECTRIC BREAKDOWN METHODS

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 60370 has been prepared by IEC technical committee 15: Solid electrical insulating materials.

This second edition cancels and replaces the first edition published in 1971. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) this document is now describing two methods, the existing one, following ASTM D1932 and new a method following the requirements of IEC 60455-2 and IEC 60464-2;

b) the theoretical background and way of calculation were removed, and replaced by reference to IEC 60216;

c) the layout and numbering system was updated;

d) for better understanding and illustration purposes examples were added.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
15/812/FDIS	15/819/RVD

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

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

This document describes methods for thermal endurance testing. The methods described are in line with IEC 60216 (all parts). More information about the theory of thermal endurance, calculation methods and other possible methods can be found in IEC 60216 (all parts).