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Method for the determination of the proof and the comparative tracking indices of solid insulating materials

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/25

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EN IEC 60112

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Supersedes EN IEC 60112:2020

English Version

Method for the determination of the proof and the comparative tracking indices of solid insulating materials (IEC 60112:2025)

Méthode de détermination des indices de résistance et de tenue au cheminement des matériaux isolants solides
(IEC 60112:2025)

Verfahren zur Bestimmung der Prüfwahl und der Vergleichszahl der Kriechwegbildung von festen, isolierenden Werkstoffen
(IEC 60112:2025)

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

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EN IEC 60112:2025 (E)**European foreword**

The text of document 112/679/FDIS, future edition 6 of IEC 60112, prepared by TC 112 "Evaluation and qualification of electrical insulating materials and systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60112:2025.

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IEC 60212	NOTE	Approved as EN 60212
IEC 60587	NOTE	Approved as EN IEC 60587
IEC 60664-1	NOTE	Approved as EN IEC 60664-1
ISO 293	NOTE	Approved as EN ISO 293
ISO 294-1	NOTE	Approved as EN ISO 294-1
ISO 294-3	NOTE	Approved as EN ISO 294-3
ISO 295	NOTE	Approved as EN ISO 295
ISO 3167	NOTE	Approved as EN ISO 3167
ISO 3696	NOTE	Approved as EN ISO 3696
ISO 7888	NOTE	Approved as EN 27888

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 4287	-	Geometrical Product Specifications (GPS) - Surface texture: Profile method - Terms, definitions and surface texture parameters	-	-



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INTERNATIONAL STANDARD

NORME INTERNATIONALE

BASIC SAFETY PUBLICATION

PUBLICATION FONDAMENTALE DE SÉCURITÉ

**Method for the determination of the proof and the comparative tracking indices
of solid insulating materials**

**Méthode de détermination des indices de résistance et de tenue au
cheminement des matériaux isolants solides**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

Method for the determination of the proof and the comparative tracking indices of solid insulating materials

FOREWORD

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IEC 60112 has been prepared by IEC technical committee 112: Evaluation and qualification of electrical insulating materials and systems. It is an International Standard.

This sixth edition cancels and replaces the fifth edition published in 2020. This edition constitutes a technical revision.

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

- a) In 7.3, the term "resistivity" has been replaced by "conductivity".

It has the status of a basic safety publication in accordance with IEC Guide 104.

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

Draft	Report on voting
112/679/FDIS	112/686/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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- reconfirmed,
- withdrawn, or
- revised.

1 Scope

This document specifies the method of test for the determination of the proof and comparative tracking indices of solid insulating materials on pieces taken from parts of equipment and on plaques of material using alternating voltage.

This document provides a procedure for the determination of erosion when required.

The proof tracking index is used as an acceptance criterion as well as a means for the quality control of materials and fabricated parts. The comparative tracking index is mainly used for the basic characterization and comparison of the properties of materials.

This test method evaluates the composition of the material as well as the surface of the material being evaluated. Both the composition and surface condition directly influence the results of the evaluation and are considered when using the results in material selection process.

The described test method is designed for a test voltage up to 600 V AC, because higher test voltages and DC voltage will lead to a reduced test severity.

Test results are not directly suitable for the evaluation of safe creepage distances when designing electrical apparatus.

The results of this method have been used for insulation coordination of equipment. It is important that use of these results also considers the overvoltage levels, creepage distances, and establishes the pollution degree to which the product insulation system will be expected to be subjected. This is in compliance with IEC 60664-1.

This basic safety publication focusing on a safety test method is primarily intended for use by technical committees in the preparation of safety publications in accordance with the principles laid down in IEC Guide 104 and ISO/IEC Guide 51.

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