



Irish Standard
I.S. EN IEC 60587:2022

Version 1.00

Electrical insulating materials used under severe ambient conditions - Test methods for evaluating resistance to tracking and erosion

I.S. EN IEC 60587:2022 V1.00

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National Foreword

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EUROPEAN STANDARD

EN IEC 60587

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2022

ICS 29.035.01; 17.220.99

Supersedes EN 60587:2007

English Version

**Electrical insulating materials used under severe ambient
conditions - Test methods for evaluating resistance to tracking
and erosion
(IEC 60587:2022)**

Matériaux isolants électriques utilisés dans des conditions
ambiantes sévères - Méthodes d'essai pour évaluer la
résistance au cheminement et à l'érosion
(IEC 60587:2022)

Elektroisolerstoffe, die unter erschwerten Bedingungen
eingesetzt werden - Prüfverfahren zur Bestimmung der
Beständigkeit gegen Kriechwegbildung und Erosion
(IEC 60587:2022)

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I.S. EN IEC 60587:2022 V1.00
EN IEC 60587:2022 (E)

European foreword

The text of document 112/561/FDIS, future edition 4 of IEC 60587, prepared by IEC/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 60587:2022.

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) 2023-01-04
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IEC 60587

Edition 4.0 2022-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Electrical insulating materials used under severe ambient conditions –
Test methods for evaluating resistance to tracking and erosion**

**Matériaux isolants électriques utilisés dans des conditions ambiantes sévères –
Méthodes d'essai pour évaluer la résistance au cheminement et à l'érosion**



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IEC 60587

Edition 4.0 2022-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Electrical insulating materials used under severe ambient conditions –
Test methods for evaluating resistance to tracking and erosion**

**Matériaux isolants électriques utilisés dans des conditions ambiantes sévères –
Méthodes d'essai pour évaluer la résistance au cheminement et à l'érosion**

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CONTENTS

FOREWORD.....	3
1 Scope.....	5
2 Normative references	5
3 Terms and definitions	5
4 Test specimens	6
4.1 Dimensions	6
4.2 Preparation	6
5 Apparatus.....	7
5.1 General.....	7
5.2 Electrical apparatus	7
5.3 Specimen assembly	8
5.3.1 General	8
5.3.2 Electrodes	9
5.3.3 Filter-paper stack.....	10
5.3.4 Mounting of the specimen assembly	11
5.4 Contaminant	13
5.5 Timing device	13
5.6 Depth gauge	13
5.7 Ventilation.....	14
6 Test procedure	14
6.1 General.....	14
6.2 Criterion A – evaluation of the current (preferred)	14
6.3 Criterion B – evaluation of the length of the track.....	14
6.4 Method 1 – test at constant voltage.....	14
6.5 Method 2 – test at stepwise increased voltage	15
6.6 Classification of the materials tested according to method 1	16
6.7 Classification of the materials tested according to method 2	16
7 Test report.....	17
Bibliography.....	18
Figure 1 – Test specimen with boreholes for mounting of electrodes.....	6
Figure 2 – Schematic diagram of circuit	8
Figure 3 – Example of typical circuit for an overcurrent delay relay (ODR)	8
Figure 4 – Schematic diagram of specimen assembly	9
Figure 5 – Top electrode	10
Figure 6 – Bottom electrode	10
Figure 7 – Filter-paper	11
Figure 8 – Schematic diagram of specimen assembly	11
Figure 9 – Schematic diagram of specimen support	12
Figure 10 – Example of specimen support.....	13
Table 1 – Specimen preparation sequence	7
Table 2 – Test parameters	15

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICAL INSULATING MATERIALS USED UNDER SEVERE AMBIENT CONDITIONS – TEST METHODS FOR EVALUATING RESISTANCE TO TRACKING AND EROSION

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IEC 60587 has been prepared by IEC technical committee 112: Evaluation and qualification of electrical insulating materials and systems. It is an International Standard.

This fourth edition cancels and replaces the third edition published in 2007. This edition constitutes a technical revision.

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

- a) an improved description of the experimental methods has been implemented;
- b) an improved description of the preparation of the test specimens has been implemented;
- c) a more detailed description of the electrode material and of the electrode quality has been added;
- d) evaluation criterion B (track length) has been removed for testing according to test method 2 (stepwise tracking voltage) as it is not applicable.

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

Draft	Report on voting
112/561/FDIS	112/564/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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ELECTRICAL INSULATING MATERIALS USED UNDER SEVERE AMBIENT CONDITIONS – TEST METHODS FOR EVALUATING RESISTANCE TO TRACKING AND EROSION

1 Scope

This document describes two test methods for the evaluation of electrical insulating materials for use under severe ambient conditions at power frequencies (45 Hz to 65 Hz) by the evaluation of the resistance to tracking and erosion, using a liquid contaminant and inclined plane specimens. The two methods are:

- Method 1: test at constant voltage,
- Method 2: test at stepwise increased voltage.

Method 1 is the most widely used method as there is less need for continual inspection.

The test conditions are designed to accelerate the production of the effects, but do not reproduce all the conditions encountered in service.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
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3.1

track

partially conducting path created by localized deterioration on the surface of an insulating material

3.2

tracking

progressive formation of conductive paths, which are produced on the surface or within a solid insulating material, due to the combined effects of electric stress and electrolytic contamination

Note 1 to entry: Tracking usually occurs due to surface contamination.

Note 2 to entry: Remaining degraded materials need not necessarily remain conductive, especially after they have cooled.

[SOURCE: IEC 60050-212:2010, 212-11-56, modified – Note 2 to entry has been added.]

3.3

erosion

electrical loss of material by leakage current or electrical discharge

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