AS/NZS 60112:2003
(IEC 60112:2003, IDT)

Australian/New Zealand Standard™

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

(IEC 60112:2003, IDT)

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/2 - Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on 1 September 2003 and by the Council of Standards New Zealand on 9 September 2003. It was published on 14 November 2003.

The following interests are represented on Committee EL/2

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This standard was issued in draft form for comment as DR 03927

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Originated in Australia as part of AS 2420 – 1980
Previous edition AS 2420 – 1987

Originated in New Zealand as part of AS 2420 – 1987

Jointly revised and redesignated AS/NZS 4695.112:1996

Jointly revised and redesignated AS/NZS 60112:2003

Published jointly by Standards Australia International Ltd
GPO Box 5420,Sydney, NSW 2001 Australia, and
Standards New Zealand
Private Bag 2439,Wellington 6020, New Zealand

ISBN 0 7337 5684 0

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STANDARDS ASUTRALIA / STANDARDS NEW ZEALAND

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FOREWORD

This standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-002- Safety of Household and Similar Electrical Appliances and Small Power Transformers. It replaces AS/NZS 4695.112:1996 2 years from the date of publication, in the interim period either standard may be used.

The objective of this Standard is to provide a test method for manufacturers, designers, testing laboratories and similar organizations in order to indicate the relative resistance to tracking of solid electrical insulating materials when exposed to moisture and surface contamination.

This Standard is an adoption of and contains the full text of the fourth edition of IEC 60112, *Method for the Determination of the Proof and the Comparative Tracking Indices of Solid Insulating Materials* including its corrigendum 1 (06-2003).

Clause 2 and the bibliography have been reformatted to indicate the Australia/New Zealand standard that is equivalent to the IEC standard or ISO standard to which normative reference is made.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown on the cover and title page only.

(b) In the source text "this International Standard" should read "this Australian/New Zealand Standard".

A full point substitutes for a comma when referring to a decimal marker.

There are no Australian or New Zealand technical variations to this standard.

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

1 Scope

This International standard 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 voltages.

The standard provides for the determination of erosion when required.

NOTE 1 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.

Test results cannot be used directly for the evaluation of safe creepage distances when designing electrical apparatus.

NOTE 2 This test discriminates between materials with relatively poor resistance to tracking, and those with moderate or good resistance, for use in equipment which can be used under moist conditions. More severe tests, of longer duration are required for the assessment of performance of materials for outdoor use, utilizing higher voltages and larger test specimens (see the inclined plane test of IEC 60587). Other test methods such as the inclined method may rank materials in a different order from the drop test given in this standard.

2 Normative references

The following referenced documents are indispensable for the application 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.

International Standard	Year	Title	AU/NZ Standard	Year
IEC 60589	1977	*Methods of test for the determination of ionic impurities in electrical insulating materials by extraction with liquids*		
IEC Guide 104	1997	*The preparation of safety publications and the use of basic safety publications and group safety publications*		
ISO 293	1986	*Plastics – Compression moulding test specimens of thermoplastic materials*		