Australian/New Zealand Standard™

Fire hazard testing—

Part 2.10 Glowing/hot wire based test methods – Glow-wire apparatus and common test procedure (IEC 60695-2-10:2000, IDT)

Standards Australia

STANDARDS NEW ZEALAND

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-002, Safety of household and similar electrical appliances and small power transformers. It was approved on behalf of the Council of Standards Australia on 21 May 2001 and on behalf of the Council of Standards New Zealand on 12 May 2001. It was published on 11 June 2001.

The following interests are represented on Committee EL-002:

Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Canterbury Manufacturers Association New Zealand
Consumer Electronic Suppliers Association, Australia
Electrical regulatory authorities, Australia
Electrical test laboratories
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PREFACE

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, to supersede the general glow-wire test methods contained in AS/NZS 695.2.10, two years from publication.

The objective of this Standard is to provide general requirements for a glow-wire test that allows manufacturers, designers, testing laboratories and similar organizations, to assess the fire hazard of electrotechnical products using simulation techniques.

This Standard forms the first edition of AS/NZS 60695.2.10, *Fire hazard testing* - Part 2.10: *Glowing/hot wire based test methods - Glow-wire apparatus and common test procedure*.

This Standard is identical to and is reproduced from IEC 60695-2-10:2000, *Fire hazard testing* - Part 2-10: *Glowing/hot wire based test methods - Glow-wire apparatus and common test procedure*.

AS/NZS 60695.2.11, AS/NZS 60695.2.12 and AS/NZS 60695.2.13 are to be used in conjunction with this standard.

Annex A is for information only.

Clause 2 has 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 "IEC 60695" should read "AS/NZS 60695".

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

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NOTES

INTRODUCTION

The best method for testing electrotechnical products with regard to fire hazard is to duplicate exactly the conditions occurring in practice. In most instances, this is not possible. Accordingly, for practical reasons, the testing of electrotechnical products with regard to fire hazard is best conducted by simulating as closely as possible the actual effects occurring in practice.

Parts of electrotechnical equipment which might be exposed to excessive thermal stress due to electric effects and the deterioration of which might impair the safety of the equipment must not be unduly affected by heat and by fire generated within the equipment.

Parts of insulating material or of other solid combustible material which are liable to propagate flames inside the equipment may be ignited by glowing wires or glowing elements. Under certain conditions (for example, a fault current flowing through a wire, overloading of components, and bad connections), certain elements may attain a temperature such that they will ignite parts in their vicinity.

AUSTRALIAN/NEW ZEALAND STANDARD

FIRE HAZARD TESTING –

Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure

1 Scope

This part of IEC 60695 specifies the glow-wire apparatus and common test procedure to simulate the effect of thermal stresses which may be produced by heat sources such as glowing elements or overloaded resistors, for short periods, in order to assess the fire hazard by a simulation technique.

The test described in this standard is applicable to electrotechnical equipment, its subassemblies and components, and may also be applied to solid electrical insulating materials or other solid combustible materials.

One of the responsibilities of a technical committee is, wherever applicable, to make use of basic safety publications in the preparation of its publications.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 60695. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of IEC 60695 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC or ISO standard	Year	Title	AU/NZ standard	Year
IEC 60584-1	1995	*Thermocouples – Part 1: Reference tables*		
IEC 60584-2	1982	*Thermocouples – Part 2: Tolerances*		
IEC 60695-2-11	2000	*Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow wire flammability test methods for end-products*	AS/NZS 60695.2.11	2001
IEC 60695-2-12	2000	*Fire hazard testing – Part 2-12: Glowing/hot-wire based test methods – Glow wire flammability test method for materials*	AS/NZS 60695.2.12	2001
IEC 60695-2-13	2000	*Fire hazard testing – Part 2-13: Glowing/hot-wire based test methods – Glow wire ignitability test method for materials*	AS/NZS 60695.2.13	2001
ISO 4046	1978	*Paper, board, pulp and related terms – Vocabulary*		
ISO/IEC 13943	2000	*Fire safety – Vocabulary*		