

Australian/New Zealand Standard™

Fire hazard testing—

**Part 2.13: Glowing/hot wire based test
methods—Glow-wire ignitability test
method for materials
(IEC 60695-2-13:2000, IDT)**



Standards Australia



STANDARDS
NEW ZEALAND
Te Ara Rau

AS/NZS 60695.2.13:2001

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
Electrical consultants
Electricity Supply Association of Australia
Institution of Engineers Australia
Metal trade Industries Association of Australia
Ministry of Consumer Affairs, New Zealand

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia International or Standards New Zealand at the address shown on the back cover.

AS/NZS 60695.2.13:2001

Australian/New Zealand Standard™

Fire hazard testing—

**Part 2.13: Glowing/hot wire based
test methods—Glow-wire ignitability
test method for materials
(IEC 60695-2-13:2000, IDT)**

Originated in Australia as part of AS 2420—1980
Second edition AS 2420—1987

Originated in New Zealand as part of AS 2420—1987

Jointly revised and redesignated in part, as AS/NZS 4695.2.13:1996

Jointly revised and redesignated AS/NZS 60695.2.13:2001

COPYRIGHT

© Standards Australia/ Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher

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 4074 X

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 4695.2.13, two years from publication.

The objective of this Standard is to provide a small-scale laboratory screening procedure that allows manufacturers and designers to pre-select materials based on the ignition of specimens made from non-metallic materials using a glowing wire ignition source.

This Standard forms the first edition of AS/NZS 60695.2.13, *Fire hazard testing - Part 2.13: Glowing/hot wire based test methods - Glow-wire ignitability test method for materials*.

This Standard is identical to and is reproduced from IEC 60695-2-13:2000, *Fire hazard testing - Part 2-13: Glowing/hot wire based test methods - Glow-wire ignitability test method for materials*.

This Standard is to be used in conjunction with AS/NZS 60695.2.10.

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.

CONTENTS

Clause	Page
1 Scope.....	1
2 Normative references	1
3 Definitions	2
4 Description of the test specimens	2
5 Description of the test apparatus	2
6 Severities	3
7 Verification of the temperature measuring system	3
8 Conditioning	3
9 Initial measurements	3
10 Test procedure	3
11 Observations and measurements.....	4
12 Evaluation of test results	4
13 Test report.....	4
Table 1 – Test severities.....	3

NOTES

AUSTRALIAN/NEW ZEALAND STANDARD

FIRE HAZARD TESTING –

Part 2.13: Glowing/hot-wire based test methods – Glow-wire ignitability test method for materials

1 Scope

This part of IEC 60695 specifies the details of the glow-wire test to be applied to test specimens of solid electrical insulating materials or other solid materials for ignitability testing to determine the glow-wire ignition temperature (GWIT).

The test results make it possible to provide a relative comparison of various materials according to the temperature at which the test specimen ignites during the application of the electrically heated glow-wire used as an ignition source.

The test method is not valid for determining the ignition behaviour of complete items of equipment, since the dimensions of the insulating systems or combustible parts, the design and heat transfer to adjacent metallic or non-metallic parts, etc., greatly influence the ignitability of the materials used therein. In addition to this, it is not valid for determining fire behaviour and fire hazard of equipment.

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.

<u>IEC standard</u>	<u>Year</u>	<u>Title</u>	<u>AU/NZ standard</u>	<u>Year</u>
IEC 60695-2-10	2000	<i>Fire hazard testing – Part 2-10: Glowing/hot-wire based test methods – Glow-wire apparatus and common test procedure</i>	AS/NZS 60695.2.10	2001
ISO/IEC 13943	2000	<i>Fire safety – Vocabulary</i>		