AS 60695.9.2—2006

Australian Standard®

Fire hazard testing

Part 9.2: Surface spread of flame—Summary and relevance of test methods

This Australian Standard® was prepared by Committee EL-053, Fire hazard testing—Electrotechnical equipment. It was approved on behalf of the Council of Standards Australia on 23 May 2006.
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The following are represented on Committee EL-053:

- Australian Electrical and Electronic Manufacturers Association
- Australian Information Industry Association
- Electrical Compliance Testing Association
- Electrical Regulatory Authorities Council
- Energy Networks Association

This Standard was issued in draft form for comment as DR 06193.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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PREFACE

This Standard was prepared by the Standards Australia Committee EL-053, Fire hazard testing—Electrotechnical equipment.

The objective of this series of standards is to provide the electrotechnology industry and standards writing committees with a series of standards which give guidance on assessing the fire hazard of electrotechnical products.

This Standard is identical with, and has been reproduced from IEC/TS 60695-9-2, Ed 2.0 (2005), *Fire hazard testing - Part 9-2: Surface spread of flame - Summary and relevance of test methods.*

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 only on the cover and title page.

(b) In the source text 'IEC/TS 60695-9-2' should read 'AS 60695.9.2'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

(d) Any French text on figures should be ignored.

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

Any International Standard referenced should be replaced by an equivalent Australian Standard where one is available. The availability of equivalent Australian Standards can be determined either from the Standards Web Shop at www.standards.com.au or from the annual printed catalogue of Australian Standards.

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INTRODUCTION

The risk of fire needs to be considered in any electrical circuit. The objective of component, circuit and equipment design, as well as the choice of materials, is to reduce the likelihood of fire, even in the event of foreseeable abnormal use, malfunction or failure.

Electrotechnical products, primarily as victims of fire, may nevertheless contribute to the fire. Fire hazard increases as the burning area increases, leading in some cases to flash-over and a fully developed fire. This is a typical fire scenario in buildings. It is therefore useful to measure the rate and extent of the surface spread of flame.

This technical specification describes surface spread of flame test methods in common use to assess electrotechnical products or materials used in electrotechnical products. It forms part of the IEC 60695-9 series which gives guidance to product committees wishing to incorporate test methods for surface spread of flame in product standards.

STANDARDS AUSTRALIA

Australian Standard

Fire hazard testing
Part 9.2: Surface spread of flame—Summary and relevance of test methods

1 Scope

This technical specification provides a summary of test methods that are used to determine the surface spread of flame of electrotechnical products or materials from which they are formed.

It represents the current state of the art of the test methods and, where available, includes special observations on their relevance and use.

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 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.

IEC 60332-3 (all parts), *Tests on electrical cables under fire conditions – Part 3: Test for vertical flame spread of vertically-mounted bunched wires of cables*

IEC 60695-4:2005, *Fire hazard testing – Part 4: Terminology concerning fire tests*

IEC 60695-9-1, *Fire hazard testing – Part 9-1: Surface spread of flame – General guidance*

IEC Guide 104, *The preparation of safety publications and the use of basic safety publications and group safety publications*

ISO/IEC Guide 51, *Safety aspects – Guidelines for their inclusion in standards*

ISO/IEC 13943:2000, *Fire safety – Vocabulary*

ISO 5658-2, *Reaction to fire tests – Spread of flame – Part 2: Lateral spread on building products in vertical configuration*

ISO 5658-4, *Reaction to fire tests – Spread of flame – Part 4: Intermediate-scale test of vertical spread of flame with vertically oriented specimen* (available in English only)