AS 60695.6.2—2006
IEC/TS 60695-6-2, Ed 2.0 (2005)

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Australian Standard™

Fire hazard testing

Part 6.2: Smoke obscuration—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 06182.

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 60695-6-2, Ed 2.0 (2005), *Fire hazard testing - Part 6.2: Smoke obscuration - 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 60695-6-2' should read 'AS 60695.6.2'.

(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.

CONTENTS

INTRODUCTION

The risk of fire needs to be considered in any electrical circuit, and the objective of component, circuit and equipment design, and 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. One of the contributing hazards is the release of smoke, which may cause loss of vision and/or disorientation which could impede escape from the building, or fire fighting.

This technical specification describes smoke test methods in common use to assess the smoke release from electrotechnical products, or from materials used in electrotechnical products. It forms part of the IEC 60695-6 series which gives guidance to product committees wishing to incorporate test methods for smoke obscuration in product standards.

NOTES

STANDARDS AUSTRALIA

Australian Standard

Fire hazard testing
Part 6.2: Smoke obscuration—Summary and relevance of test methods

1 Scope

This technical specification gives a summary of the test methods that are used in the assessment of smoke obscuration. It presents a brief summary of static and dynamic test methods in common use, either as international standards or national or industry standards. It includes special observations on their relevance to electrotechnical products and their materials and to fire scenarios, and it gives recommendations on their 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 60695-4:2005, *Fire hazard testing – Part 4: Terminology concerning fire tests*

IEC 60695-6-1, *Fire hazard testing – Part 6-1: Smoke obscuration – General guidance*

IEC 61034-1, *Measurement of smoke density of cables burning under defined conditions – Part 1: Test apparatus*

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

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

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

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results – Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO/TR 9122-1:1989, *Toxicity testing of fire effluents – Part 1: General* [1]

NF C20-902-1, *Fire hazard testing – Test methods – Determination of smoke opacity without air change – Part 1: Methodology and test devices*

[1] This document has been withdrawn.