

Australian Standard™

Electrical installations in ships

**Part 351: Insulating materials for
shipboard and offshore units, power,
control, instrumentation,
telecommunication and data cables**



This Australian Standard was prepared by Committee EL-003, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 9 November 2005.
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The following are represented on Committee EL-003:

Australasian Railway Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Canterbury Manufacturers Association New Zealand
Department of Defence (Australia)
Department of Primary Industries, Mine Safety (NSW)
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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to specify the requirements for insulating materials intended for use in shipboard and offshore unit power, control, instrumentation, telecommunication and data cables.

This Standard is identical with, and has been reproduced from IEC 60092-351, Ed. 3 (2004), *Electrical installations in ships—Part 351: Insulating materials for shipboard and offshore units, power, control, instrumentation, telecommunication and data cables*.

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 60092' should read 'AS 60092'.
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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.

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STANDARDS AUSTRALIA

Australian Standard**Electrical installations in ships**
Part 351: Insulating materials for shipboard and offshore units, power, control, instrumentation, telecommunication and data cables

1 Scope

This part of IEC 60092 specifies the requirements for electrical, mechanical and particular characteristics of insulating materials intended for use in shipboard and fixed and mobile offshore unit power, control, instrumentation, telecommunication and data cables.

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.

References to international standards that are struck through in this clause are replaced by references to Australian or Australian/New Zealand Standards that are listed immediately thereafter and identified by shading. Any Australian or Australian/New Zealand Standard that is identical to the International Standard it replaces is identified as such.

IEC 60502-1:1997, *Power cables with extruded insulation and their accessories for rated voltages from 1 kV ($U_m = 1,2$ kV) up to 30 kV ($U_m = 36$ kV) – Part 1: Cables for rated voltages of 1 kV ($U_m = 1,2$ kV) and 3 kV ($U_m = 3,6$ kV)*

IEC 60754-2, *Test on gases evolved during combustion of electric cables – Part 2: Determination of degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity*

IEC 60811-1-1:1993, *Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Measurement of thickness and overall dimensions – Tests for determining the mechanical properties*¹⁾
Amendment 1 (2001)

IEC 60811-1-2:1995, *Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Section Two: Thermal ageing methods*
Amendment 1 (1989)
Amendment 2 (2000)

IEC 60811-1-4:1985 *Common test methods for insulating and sheathing materials of electric cables – Part 1: Methods for general application – Section four: Test at low temperature*
Amendment 1 (1993)
Amendment 2 (2001)

IEC 60811-2-1:1998 *Insulating and sheathing materials of electric and optical cables – Common test methods – Part 2-1: Methods specific to elastomeric compounds – Ozone resistance, hot set and mineral oil immersion tests*²⁾

¹⁾ A consolidated edition 2.1 (2001) exists, including edition 2.0 and its Amendment 1.