

AS/NZS 3808:1998

Australian/New Zealand Standard<sup>®</sup>

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**Insulating and sheathing materials  
for electric cables**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/3, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 17 November 1997 and on behalf of the Council of Standards New Zealand on 17 November 1997. It was published on 5 February 1998.

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The following interests are represented on Committee EL/3:

Australasian Railways Association  
Australian Electrical and Electronic Manufacturers Association  
Department of Defence, Australia  
Electrical regulatory authorities  
Electricity Supply Association of Australia  
Institution of Engineers, Australia  
Ministry of Commerce, New Zealand  
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New Zealand Electrical and Electronic Manufacturers Federation  
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## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/3, Electric Wires and Cables.

The objective of the Standard is to provide manufacturers and suppliers with specifications for compounds and tests, referenced in particular Standards, for insulating and sheathing materials used in the construction of electric cables and flexible cords.

This Standard does not supersede insulating and sheathing material requirements in existing cable Standards but will apply when referenced in future editions of cable Standards.

It is expected that this publication will be revised bi-annually to take into account any new materials or tests. This Standard is published in loose-leaf format to enable any changes to be readily included.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****Insulating and sheathing materials for electric cables**

**1 SCOPE** This Standard specifies the tests and criteria for elastomeric, PVC, fire performance and polyolefin insulating and sheathing materials used in the construction of electric cables and flexible cords and referenced in Australian and Australian/New Zealand Standards. It applies to electric cables and cords designed for working voltages up to and including 19/33 kV. This Standard does not cover tests that can only be conducted on completed cables, e.g. partial discharge,  $\tan \delta$ , impulse, high voltage, shrinkage and adhesion tests.

The requirements of this Standard only apply when referenced in other relevant Standards. This Standard does not supersede requirements in existing Standards.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

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|--------|-----------------------------------------------------------------------------------------------------------------------------|
| 1026   | Electric cables—Impregnated paper insulated—Working voltages up to and including 33 kV                                      |
| 1049   | Telecommunication cables—Insulation, sheath and jacket                                                                      |
| 1178   | Concentric wire neutral cables—XLPE insulated—For electricity supply at working voltages of 0.6/1 kV                        |
| 1429   | Electric cables—Polymeric insulated                                                                                         |
| 1429.1 | Part 1: For working voltages 1.9/3.3(3.6) kV up to and including 19/33(36) kV                                               |
| 1660   | Methods of test for electric cables, cords and conductors                                                                   |
| 1979   | Electric cables—Lifts—Flexible travelling                                                                                   |
| 2122   | Combustion characteristics of plastics                                                                                      |
| 2276   | Cables for traffic signal installations                                                                                     |
| 2276.1 | Part 1: Multicore power cables                                                                                              |
| 2276.2 | Part 2: Feeder cable for vehicle detectors                                                                                  |
| 2276.3 | Part 3: Loop cable for vehicle detectors                                                                                    |
| 2802   | Electric cables—Reeling and trailing—For mining and general use (other than underground coal mining)                        |
| 3008   | Electrical installations—Selection of cables                                                                                |
| 3008.1 | Part 1: Cables for alternating voltages up to and including 0.6/1 kV                                                        |
| 3147   | Approval and test specification—Electric cables—Thermoplastic insulated—For working voltages up to and including 0.6/1 kV   |
| 3158   | Approval and test specification—Electric cables—Glass fibre insulated for working voltages up to and including 0.6/1 kV     |
| 3178   | Approval and test specification—Electric cables—Silicone rubber insulated—For working voltages up to and including 0.6/1 kV |
| 3560   | Electric cables—XLPE insulated—Aerial bundled—For working voltages up to and including 0.6/1 kV                             |

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