

Australian Standard™

**Electric cables—Glass fibre insulated—
For working voltages up to and
including 0.6/1 (1.2) kV**

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 16 January 2004 and published on 20 February 2004.

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Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Canterbury Manufacturers Association New Zealand
Department of Defence (Australia)
Department of Mineral Resources NSW
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Electrical Regulatory Authorities Council
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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 3158—2004

**Electric cables—Glass fibre insulated—For working voltages up to and including
0.6/1 (1.2) kV**

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Technical Committee EL-003 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Australian Cable Makers' Association
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Electrical Compliance Testing Association
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National Electrical and Communications Association
Queensland University of Technology

NOTES

Australian Standard™

**Electric cables—Glass fibre insulated—
For working voltages up to and
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PREFACE

This Standard was prepared by 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 Standard rather than an Australian/New Zealand Standard. It supersedes AS 3158—1994, *Approval and test specification—Electric cables—Glass fibre insulated for working voltages up to and including 0.6/1 kV*.

The objective of this Standard is to provide manufacturers and suppliers with construction details, dimensions and tests for cables, flexible cables and flexible cords insulated with glass fibre for use in electrical installations at working voltages up to and including 0.6/1 (1.2) kV.

This Standard differs from the 1994 edition in the following significant ways:

- (a) Glass fibre insulated flexible cords have been included.
- (b) The insulation thickness for cables with 4 mm² conductor sizes has been increased to 1.0 mm to align with the insulation thickness of the equivalent flexible cord.
- (c) The tables of dimensions have been deleted.

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

Australian Standard

Electric cables—Glass fibre insulated—For working voltages up to and including 0.6/1 (1.2) kV**1 SCOPE**

This Standard specifies construction, dimensions and tests for cables, flexible cables and flexible cords insulated with glass fibre for use in electrical installations at working voltages up to and including 0.6/1 (1.2) kV.

NOTE: Purchasing guidelines are contained in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2706 Numerical values—Rounding and interpretation of limiting values

AS/NZS

1125 Conductors in insulated electric cables and flexible cords

1660 Test methods for electric cables, cords and conductors

1660.1 Part 1: Conductors and metallic components

1660.2.1 Part 2.1: Insulation, extruded semi-conductive screens and non-metallic sheaths
—Methods for general application

1660.3 Part 3: Electrical tests

1660.4 Part 4: Complete cable and flexible cord

1660.5.6 Part 5.6: Fire tests—Test for combustion propagation

ASTM

B355 Standard specification for nickel-coated soft or annealed copper wire

3 DEFINITIONS

For the purposes of this Standard the definitions given in the referenced Standards and those below apply:

3.1 Approximate value

A value which is neither guaranteed nor checked.

3.2 Core (of cable)

The conductor with its insulation but not including any protective covering.

3.3 Direction of lay

The slope of the helically laid-up cores of a multicore cable, when the cable is held vertically.

It is right-hand when the slope is in the direction of the central part of the letter Z, and left-hand when the slope is in the direction of the central part of the letter S.