

Australian Standard™

**Telecommunication cables—Insulation,  
sheath and jacket**

This Australian Standard was prepared by Committee CT-001, Communications Cabling. It was approved on behalf of the Council of Standards Australia on 14 November 2002 and published on 16 May 2003.

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Australian Standard™

**Telecommunication cables—Insulation,  
sheath and jacket**

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## PREFACE

This Standard was prepared by the Standards Australia Committee CT-001, Communications Cabling, to supersede AS 1049—2000. In the course of preparation, this Standard has incorporated relevant material from UL 444, *Standard for Safety for Communications Cables*.

The objective of this Standard is to provide polymer manufacturers, telecommunication cable manufacturers and end users with requirements and test methods for plastics used in telecommunication cables insulation, sheathing and jackets in order to maintain quality control and acceptance levels at the various stages of manufacture.

The objective of this revision is to incorporate requirements for additional materials used for insulation, sheaths and jackets.

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. Thirty six test methods are set out in normative appendices.

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

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## STANDARDS AUSTRALIA

## Australian Standard

## Telecommunication cables—Insulation, sheath and jacket

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies the material requirements of the finished products and some of the compounds used to manufacture telecommunication cables and provides test methods to evaluate the properties specified.

The Standard specifies the requirement for the composition, physical and electrical performance and test methods of various materials, insulation, sheath and jacket as follows:

- (a) *Sections 2 to 15* Sections 2 to 15 specify the requirements of the compounds and finished products.
- (b) *Appendices A to II* Appendices A to II provide a set of reference test methods for determination of compliance with the requirements of this Standard.

NOTE: Appendix JJ provides recommendations for purchasing guidelines to be supplied at the time of enquiry or order of the cable.

This Standard does not cover cables using materials that are semi-conductive.

This Standard does not include such aspects of telecommunication cables as spacers or cores in co-axial cables.

This Standard does not include dimensions or electrical requirements of completed cables.

**1.2 APPLICATION**

This Standard is intended for use by the following:

- (a) Polymer manufacturers, to form the basis of the raw material quality control procedures for the manufacture of PE and PA compounds.
- (b) Cable manufacturers, to form the basis of the cable material quality control procedures for the manufacture of a range of insulation, sheath and jackets of different materials.
- (c) Cable end-users, to form the basis of the cable acceptance procedures for the completed cable.

For different cable materials, tests are performed on—

- (i) compounds;
- (ii) insulation, sheath and jacket materials taken during manufacture; and
- (iii) insulation, sheath and jacket materials taken from completed cable.

These requirements are summarized in Table 1.1.