Australian/New Zealand Standard™

Electric cables—Reeling and trailing—For underground coal mining

Standards Australia

STANDARDS NEW ZEALAND
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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-003, Electric Wires and Cables. It was approved on behalf of the Council of Standards Australia on 2 September 2003 and on behalf of the Council of Standards New Zealand on 9 September 2003. It was published on 7 November 2003.

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Electric cables—Reeling and trailing—For underground coal mining

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-003, Electric Wires and Cables to supersede AS/NZS 1802:1995 *Electric cables—Reeling and trailing—For underground coal mining purposes*.

The Standard aligns with AS/NZS 2802 *Electric cables—Reeling and trailing—For mining and general use (other than underground coal mining)* for cables that have been developed to meet the special requirements of the Australian surface mining industry.

The objective of this Standard is to specify construction and tests of reeling and trailing cables specifically designed for use in underground coal mines.

Where the method of testing differs from, or has not yet been included in AS/NZS 1660, the test method has been included in Clause 25 and appendices to this Standard.

While the requirements of underground coal mining continue to determine the cables to be incorporated in this Standard, it is recognized that many of these cables will be equally applicable to other installations, e.g. underground metalliferous mines, ship loaders, travelling cranes, reclaimers at loading stations and other materials handling plant. Other requirements may apply in these applications.

Appropriate requirements for new types and sizes will be included in this Standard as the need arises.

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

(a) Type 217 and Type 280A cables have been deleted.

(b) Insulation and sheathing materials have been referenced to AS/NZS 3808.

(c) The definition of voltage designation has been modified to align with AS/NZS 2802.

(d) The nominal overall diameters of cables have been deleted from the tables of dimensions. Consequently Appendix D has been deleted.

(e) The extruded covering on interstitial conductors of Type 240 and Type 260 cables is now termed insulation.

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 are deemed to be requirements of this Standard.

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1 SCOPE

This Standard specifies elastomer-insulated, elastomer-sheathed reeling and trailing electric cables for use in underground coal mines. An essential feature of this Standard is the requirement that cables used for alternating current supply be electrically symmetrical.

This Standard is intended to apply only to cables of the types provided for in the tables of construction and dimensions.

This Standard also provides the basis of requirements for other sizes of cable not specified in this Standard.

NOTE: Purchasing guidelines are provided in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1931	High voltage test techniques (all parts)
AS/NZS	
1125	Conductors in insulated electric cables and flexible cords
1660	Test methods for electric cables, cords and conductors
1660.1	Method 1: Conductors and metallic components
1660.2.1	Method 2.1: Insulation, extruded semi-conductive screens and non-metallic sheaths—Methods for general application
1660.2.2	Method 2.2: Insulation, extruded semi-conductive screens and non-metallic sheaths—Methods specific to elastomeric, XLPE and XLPVC materials
1660.2.5	Method 2.5: Insulation, extruded semi-conductive screens and non-metallic sheaths—Methods specific to cables above 1 kV
1660.3	Method 3: Electrical tests
1660.5.6	Method 5.6: Fire tests—Test for combustion propagation
2802	Electric cables—Reeling and trailing—For mining and general use (other than underground coal mining)
3808	Insulating and sheathing materials for electric cables
3863	Galvanized mild steel wire for armouring cables
5000	Electric cables—Polymeric insulated
5000.1	Part 1: For working voltages up to and including 0.6/1 kV
ISO	
1139	Textiles—Designation of yarns