90197

AS 1802—1985
UDC 621.315.22:622.016

FOR ED.

Australian Standard®
1802—1985

REELING AND TRAILING ELECTRIC CABLES FOR UNDERGROUND COAL MINING PURPOSES

1802—1992 **Electric cables—Reeling and trailing—For underground coal mining purposes**
(In Professional Package 32) 41pp *H*

Specifies the application, materials, construction, dimensions and tests for elastomer insulated and sheathed reeling and trailing electric cables for use in underground coal mines.

Committee EL/3. Supersedes AS 1802—1985; Draft for comment DR 90197
Publication date 1992-04-16; ISBN 0 7262 7331 7

STANDARDS ASSOCIATION OF AUSTRALIA
Incorporated by Royal Charter

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This Australian standard was prepared by Committee EL/3, Electric Wires and Cables. It was approved on behalf of the Council of the Standards Association of Australia on 7 February 1985 and published on 7 June 1985.

The following interests are represented on Committee EL/3:

Australian Electrical and Electronic Manufacturers Association
Confederation of Australian Industry
Defence Standardization Committee
Department of Aviation
Department of Industrial Relations (New South Wales)
Electrical Regulatory Authorities
Electrical Contractors Associations of Australia
Electrical Testing Laboratories
Electricity Supply Association of Australia
Metals Industry Organizations
Railways of Australia Committee
Telecom Australia

This standard was issued in draft form for comment as DR 84067.

AUSTRALIAN STANDARD

REELING AND TRAILING ELECTRIC CABLES FOR UNDERGROUND COAL MINING PURPOSES

AS 1802—1985

First published 1976
Second edition 1985

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.

ISBN 0 7262 3724 8

PREFACE

This edition of this standard was prepared by the Association's Committee on Electric Wires and Cables, to supersede AS 1802—1976, Trailing Cables for Mining Purposes (Including Underground Coal Mines, Metalliferous Mines, Open-cut Mines, Quarries and Dredges).

The standard aligns with a new standard (AS 2802, (see Clause 1.2)) for cables that have been developed to meet the special requirements of the Australian surface mining industry and the requirements of AS 3007, Electrical Installations for Outdoor Sites Under Heavy Conditions (Including Open Cast Mines and Quarries).

During the preparation of this standard, extensive consultations were held with cable users, manufacturers of cable and regulatory authorities to establish current requirements, the demand for certain types of cables and the different requirements for the size of earth conductors for cables subject to coal mining regulations and to the conditions specified in AS 3007.

This standard differs from AS 1802—1976 in the following ways:

(a) Types 102, 111 and 270 have been deleted because of low demand and the availability of other suitable cables.

(b) Types 112, 115, and 250 previously in AS 1802—1976 have been transferred to the new standard with the following qualifications:

  (i) Type 112. This type was previously specified for voltage ratings 660/1100 V, 1.9/3.3 kV, 3.8/6.6 kV and 6.4/11 kV. It will now be available with a voltage rating of 1.1/1.1 kV only and has been redesignated 412.

  (ii) Type 115. This type was previously rated at 250/440 V. It will now be available with a voltage rating of 1.1/1.1 kV only and has been redesignated 415.

  (iii) Type 250. This type was previously specified for voltage ratings 1.9/3.3 kV, 3.8/6.6 kV and 6.4/11 kV. It is now specified for ratings of 3.3/3.3 kV, 6.6/6.6 kV, 11/11 kV, 22/22 kV and 33/33 kV and has been redesignated 450.

(c) Types 209 and 241 are retained in this standard but with the following qualifications:

  (i) Type 209. This type was previously specified for voltage ratings of 660/1100 V, 1.9/3.3 kV, 3.8/6.6 kV and 6.4/11 kV. It is now rated at 1.1/1.1 kV, 3.3/3.3 kV, 6.6/6.6 kV and 11/11 kV. In AS 2802 cable of this construction is also specified for surface mining cables in Class 2, for voltage ratings of 1.1/1.1 kV up to and including 22/22 kV but has been designated Type 409.

  (ii) Type 241. This type was previously specified for voltage ratings of 660/1100 V, 1.9/3.3 kV, 3.8/6.6 kV and 6.4/11 kV. It is now rated at 1.1/1.1 kV, 3.3/3.3 kV, 6.6/6.6 kV and 11/11 kV. In AS 2802 cable of this construction is also specified in both Classes 1 and 2 but has been designated Type 441. For Class 1, the voltage ratings are from 3.3/3.3 kV up to and including 22/22 kV and for Class 2, the voltage rating is 1.1/1.1 kV. Type 241 now has a modified semiconductive elastomer covering on the earth conductor.

(d) Voltage ratings. In previous editions of AS 1802 the standardized voltage ratings for cables were 660/1100 V, 1.9/3.3 kV, 3.8/6.6 kV and 6.4/11 kV. In this standard they are 1.1/1.1 kV, 3.3/3.3 kV, 6.6/6.6 kV and 11/11 kV.

(e) In the light of superior performance of synthetic insulating materials, Type R-75 (substantially natural rubber compound) has been deleted.

(f) A new method for testing extensibility of central pilot conductors has been introduced and because of reduced slippage using the new method, the test criterion has been changed from 20 percent to 15 percent.

(g) The colour of the pilot cores has been changed from black to grey.

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