

AS/NZS 3863:2002

Reconfirmed 2017

AS/NZS 3863

Australian/New Zealand Standard™

**Galvanized mild steel wire for armouring
of cables**

AS/NZS 3863:2002

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 21 May 2002 and on behalf of the Council of Standards New Zealand on 20 June 2002. It was published on 10 July 2002.

The following are represented on Committee EL-003:

Australasian Railway Association
Australian Electrical and Electronic Manufacturers Association
Australian Industry Group
Canterbury Manufacturers Association, New Zealand
Department of Defence, Australia
Department of Mineral Resources, N.S.W.
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
Electricity Supply Association of Australia
Institution of Engineers, Australia
Ministry of Economic Development, New Zealand
National Electrical & Communications Association

Additional interests participating in the preparation of this Standard:

Australian Chamber of Commerce and Industry

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION
OF
AS/NZS 3863:2002
Galvanized mild steel wire for armouring of cables

RECONFIRMATION NOTICE

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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The following are represented on Technical Committee EL-003:

Australian Cable Makers' Association
Australian Industry Group
Electrical Compliance Testing Association
Electrical Regulatory Authorities Council
National Electrical and Communications Association
Queensland University of Technology

NOTES

Australian/New Zealand Standard™

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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 3863—1991, *Galvanized mild steel wire for armouring cables*.

The objective of the Standard is to specify requirements for galvanized cold-drawn mild steel wire of round cross-section used for the armouring of electric and telecommunication cables.

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

- (a) The Standard is published as a Joint Australian/New Zealand Standard.
- (b) An additional wire size of nominal diameter 0.80 mm has been included.
- (c) An adhesion of coating test has been included.
- (d) The coating mass requirements have been aligned with the requirements of AS/NZS 4534 Class W10.
- (e) The electrical resistance requirements have been based on a resistivity of $0.17 \mu\Omega.m$ to align with AS 3607.
- (f) Appendix B has been deleted.

The term 'informative' has been used in this Standard to define the application of the appendix to which it applies. An 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Galvanized mild steel wire for armouring of cables

1 SCOPE

This Standard specifies requirements for cold-drawn mild steel wire of round cross-section, galvanized (zinc-coated) for the armouring of electric and telecommunication cables.

NOTE: Advice and recommendations on information to be supplied by the purchaser at the time of enquiry or order are contained in the purchasing guidelines set out in Appendix A.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 1391 Methods for tensile testing of metals
- 2505 Methods for bend and related testing of metals
- 2505.5 Part 5: Torsion and wrapping tests on wire
- 2706 Numerical values—Rounding and interpretation of limiting values

AS/NZS

- 4534 Zinc and zinc/aluminium-alloy coatings on steel wire

IEC

- 60468 Method of measurement of resistivity of metallic materials

3 JOINTS

The wire, as delivered, shall contain no joints other than welds.

Joints shall be made with the ends essentially in line and burrs removed.

4 DIAMETER TOLERANCES

Diameter shall be determined by taking two measurements at right angles to each other at three places along a length not less than 250 mm. The average of these six measurements shall be taken as the diameter.

The diameter tolerances shall be in accordance with Table 1.