

AS/NZS 2893:2002

Reconfirmed 2017

AS/NZS 2893

Australian/New Zealand Standard™

**Electric cables—Lead and lead alloy  
sheaths—Composition**

## **AS/NZS 2893:2002**

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 4 June 2002 and on behalf of the Council of Standards New Zealand on 23 May 2002. It was published on 4 July 2002.

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Department of Defence (Australia)  
Department of Mineral Resources N.S.W.  
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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

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**RECONFIRMATION**

**OF**

**AS/NZS 2893:2002**

**Electric cables—Lead and lead alloy sheaths—Composition**

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**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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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 10 October 2016.

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The following are represented on Technical Committee EL-003:

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

## NOTES

# Australian/New Zealand Standard™

## **Electric cables—Lead and lead alloy sheaths—Composition**

Originated as AS C91—1941.  
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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 2893—1986 and NZS/AS 2893.

The objective of this Standard is to specify the chemical composition of metallic sheathing for electric and telecommunication cables. Guidance is provided on the types of cables and service conditions for which the different compositions are primarily intended.

This Standard is technically identical to BS 801, *Composition of lead and lead alloy sheaths of electric cables*.

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

- (a) This Standard has been published as a Joint Australian/New Zealand Standard.
- (b) The list of Standards, in which this Standard is specified, has been deleted.
- (c) Reference to the provision of a manufacturer's certificate 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

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**Australian/New Zealand Standard**  
**Electric cables—Lead and lead alloy sheaths—Composition**

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**1 SCOPE**

This Standard specifies the chemical composition of cable metallic sheathing made from lead and three lead alloys.

**2 APPLICATION**

This Standard is primarily intended for use in telecommunication, power, lighting and control cables.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

BS

3908 Methods for sampling and analysis of lead and lead alloys

BS EN

12402 Lead and lead alloys—Methods of sampling for analysis

**4 CLASSIFICATION**

Lead and lead alloys are classified as follows:

- (a) Lead.
- (b) Alloy E.
- (c) Alloy B.
- (d) Alloy ½C.

NOTE: Guidance on the use of the above materials is given in Appendix A.

**5 COMPOSITION OF SHEATHING**

The chemical composition of a lead or lead alloy sheath of a cable shall be selected from those given in Table 1, according to the type of cable and the mechanical conditions which the cable is required to withstand during transport and in service (see Appendix A).

**6 COMPOSITION OF LEAD SLEEVING FOR JOINTING PURPOSES**

The chemical composition of lead sleeving for jointing purposes shall be as given in Table 1 except that for high purity lead sleeves for jointing, the maximum copper content shall be 0.01% and the lead content not less than 99.8%.

NOTE: In the chemical compositions specified, the basic constituent is lead. For some types of cable and conditions of service, the sheathing may consist of lead, although the cable manufacturer may make small additions of other metallic elements up to the maximum limits shown in Table 1. Where cables are expected to operate under conditions of moderate or severe vibration, lead alloys are provided in which, by the deliberate addition to the lead of specified amounts of alloying elements, the resistance of the sheathing to fatigue cracking is increased.