

Australian Standard™

**Coated steel wire fencing products for  
terrestrial, aquatic and general use**

This Australian Standard was prepared by Committee MT-001, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 14 July 2002 and published on 24 July 2002.

---

The following are represented on Committee MT-001:

Australasian Railway Association  
Australian Building Codes Board  
Australian Foundry Institute  
Australian Industry Group  
Australian Institute of Steel Construction  
Bureau of Steel Manufacturers of Australia  
Institute of Materials Engineering Australasia

---

#### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) and looking up the relevant Standard in the on-line catalogue.

Alternatively, the printed Catalogue provides information current at 1 January each year, and the monthly magazine, *The Australian Standard*, has a full listing of revisions and amendments published each month.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Contact us via email at [mail@standards.com.au](mailto:mail@standards.com.au), or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 1501.

---

STANDARDS AUSTRALIA

---

RECONFIRMATION

OF

AS 2423—2002

Coated steel wire fencing products for terrestrial, aquatic and general use

---

RECONFIRMATION NOTICE

Technical Committee MT-001 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.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 10 February 2021.

The following are represented on Technical Committee MT-001:

Australian Building Codes Board  
Australian Industry Group  
Australian Steel Association  
Australian Steel Institute  
Bureau of Steel Manufacturers of Australia Limited  
Employers And Manufacturers Association  
Materials Australia  
New Zealand Heavy Engineering Research Association  
The Australasian Corrosion Association Incorporated

NOTES

Currently in preview, click buy full vers.

Australian Standard™

**Coated steel wire fencing products for  
terrestrial, aquatic and general use**

Originated as AS N1—1935, AS N2—1938, AS N3—1935 and AS N4—1935.  
Previous edition AS 2423—1991.  
Third edition 2002.

**COPYRIGHT**

© Standards Australia International

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Published by Standards Australia International Ltd  
GPO Box 5420, Sydney, NSW 2001, Australia

ISBN 0 7337 4737 X

## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MT-001, Iron and Steel, to supersede AS 2423—1991, *Galvanized wire fencing products*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian rather than an Australian/New Zealand Standard.

The objective of this Standard is to ensure that the requirements and options for zinc/aluminium-alloy coated steel wire products are met for a broad range of applications including marine and general uses for fencing applications.

This revision now includes requirements for zinc/aluminium-alloy coatings and organic coatings together with comprehensive information on product durability. The range of fencing materials has been extended to cover welded mesh fabrics and specialized products for aquatic enclosures.

In preparing this Standard cognizance was taken of ISO 7900:1988, *Zinc-coated steel wire for fencing*. This International Standard was not adopted because its scope is limited to zinc-coated single-strand wires. It does not cover any fabricated fencing products, nor zinc/aluminium-alloy coatings or supplementary organic coatings.

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

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.

## CONTENTS

|  | <i>Page</i> |
|--|-------------|
| <b>SECTION 1 SCOPE AND GENERAL</b>                           |             |
| 1.1 SCOPE.....   | 5           |
| 1.2 REFERENCED DOCUMENTS.....                                | 5           |
| 1.3 DEFINITIONS.....   | 7           |
| 1.4 WIRE AND WIRE PRODUCTS MANUFACTURE.....                  | 9           |
| 1.5 REQUIREMENTS AND TESTS FOR WIRE AND WIRE PRODUCTS .....  | 10          |
| 1.6 ROUNDING OF TEST RESULT VALUES .....                     | 15          |
| 1.7 MARKING .....  | 15          |
| <b>SECTION 2 SINGLE STRAND WIRES</b>                         |             |
| 2.1 SCOPE AND GENERAL .....                                  | 17          |
| 2.2 REQUIREMENTS.....  | 17          |
| 2.3 PREFERRED PRODUCTS, DIAMETERS AND TENSILE STRENGTHS..... | 20          |
| 2.4 PACKAGING .....  | 20          |
| 2.5 MARKING .....  | 20          |
| <b>SECTION 3 BARBED WIRE</b>                                 |             |
| 3.1 SCOPE.....   | 23          |
| 3.2 MANUFACTURE .....  | 23          |
| 3.3 REQUIREMENTS.....  | 23          |
| 3.4 TEST SPECIMEN FOR DETERMINATION OF COATING MASS.....     | 26          |
| 3.5 PACKAGING.....   | 26          |
| 3.6 MARKING .....  | 26          |
| <b>SECTION 4 WIRE NETTING</b>                                |             |
| 4.1 SCOPE.....   | 27          |
| 4.2 PRODUCT DESIGNATION.....                                 | 27          |
| 4.3 MANUFACTURE.....   | 27          |
| 4.4 REQUIREMENTS.....  | 27          |
| 4.5 PREFERRED SIZE COMBINATIONS.....                         | 29          |
| 4.6 TEST SPECIMEN FOR DETERMINATION OF COATING MASS.....     | 29          |
| 4.7 PACKAGING.....   | 29          |
| 4.8 MARKING.....   | 30          |
| <b>SECTION 5 CHAIN-LINK FENCING FABRIC</b>                   |             |
| 5.1 SCOPE.....   | 34          |
| 5.2 PRODUCT DESIGNATION .....                                | 34          |
| 5.3 MANUFACTURE .....  | 35          |
| 5.4 REQUIREMENTS.....  | 35          |
| 5.5 TEST SPECIMEN FOR DETERMINATION OF COATING MASS.....     | 38          |
| 5.6 PREFERRED MESH/WIRE COMBINATIONS .....                   | 38          |
| 5.7 PACKAGING.....   | 38          |
| 5.8 MARKING .....  | 38          |
| <b>SECTION 6 PREFABRICATED FIELD FENCING FABRIC</b>          |             |
| 6.1 SCOPE.....   | 42          |
| 6.2 PRODUCT DESIGNATION .....                                | 42          |
| 6.3 MANUFACTURE .....  | 42          |

|  |  |    |
|--|--|----|
| 6.4  | REQUIREMENTS .....   | 43 |
| 6.5  | TYPICAL DESIGNATIONS AND SIZES .....   | 44 |
| 6.6  | TEST SPECIMEN FOR DETERMINATION OF COATING MASS .....                              | 44 |
| 6.7  | PACKAGING .....  | 44 |
| 6.8  | MARKING .....  | 45 |
| <b>SECTION 7 LIGHTWEIGHT AND MEDIUMWEIGHT WELDED MESH FABRIC</b> |  |    |
| 7.1  | SCOPE.....   | 48 |
| 7.2  | PRODUCT DESIGNATION .....  | 48 |
| 7.3  | MANUFACTURE .....  | 48 |
| 7.4  | REQUIREMENTS .....   | 49 |
| 7.5  | PREFERRED SIZE COMBINATIONS .....  | 50 |
| 7.6  | TEST SPECIMEN FOR DETERMINATION OF COATING MASS .....                              | 52 |
| 7.7  | PACKAGING .....  | 52 |
| 7.8  | MARKING .....  | 52 |
| <b>SECTION 8 HEAVYWEIGHT WELDED MESH PANELS</b>                  |  |    |
| 8.1  | SCOPE.....   | 56 |
| 8.2  | PRODUCT DESIGNATION .....  | 56 |
| 8.3  | MANUFACTURE .....  | 57 |
| 8.4  | REQUIREMENTS .....   | 57 |
| 8.5  | TEST SPECIMEN FOR DETERMINATION OF COATING MASS .....                              | 59 |
| 8.6  | TYPICAL PANEL SIZE COMBINATIONS .....  | 59 |
| 8.7  | PACKAGING .....  | 59 |
| 8.8  | MARKING .....  | 59 |
| <b>SECTION 9 SPECIALIZED PRODUCTS FOR AQUATIC ENCLOSURES</b>     |  |    |
| 9.1  | GENERAL AND SCOPE .....  | 62 |
| 9.2  | PRODUCT DESIGNATION .....  | 62 |
| 9.3  | PRODUCT TYPE AND TESTING .....   | 63 |
| 9.4  | METALLIC COATING .....   | 63 |
| 9.5  | WIRE DIAMETER.....   | 63 |
| 9.6  | MARKING .....  | 63 |
| <b>APPENDICES</b>  |  |    |
| A  | PURCHASING GUIDELINES .....  | 64 |
| B  | MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD .....                        | 66 |
| C  | GUIDANCE ON CORROSION PROTECTION .....   | 68 |
| D  | TRANSPORT AND STORAGE OF ZINC-COATED AND<br>TIN/ALUMINIUM ALLOY-COATED WIRES ..... | 80 |
| E  | PROPERTIES AND TEST METHODS FOR PLASTIC<br>(THICK ORGANIC) COATINGS .....          | 81 |
| F  | DETERMINATION OF JOINT STRENGTH IN WELDED MESH FABRIC.....                         | 86 |

## STANDARDS AUSTRALIA

## Australian Standard

## Coated steel wire fencing products for terrestrial, aquatic and general use

## SECTION 1 SCOPE AND GENERAL

## 1.1 SCOPE

This Standard specifies requirements, and sets out options, for zinc or zinc/aluminium-alloy coated steel wire and wire products for a broad range of fences, trellises, enclosure and the like. Terrestrial, aquatic (notably marine) and general uses are covered.

In addition, the Standard provides for the optional application of organic coatings, such as paints and plastics, on the metallic coated wire and wire products.

The following types of fencing product are included in the Standard:

- (a) Wires (single strand) for direct use and for conversion into fabricated products.
- (b) Barbed wire.
- (c) Wire netting.
- (d) Chain-link fencing fabric.
- (e) Prefabricated field fencing fabric.
- (f) Lightweight and mediumweight welded mesh fabric.
- (g) Heavyweight welded mesh fabric (fences).
- (h) Specialized products for aquatic enclosures.

Only specialized, continuous or on-line processes, both hot-dip and electrolytic, are specified for application of the zinc or zinc/aluminium-alloy coating to single-strand wires and most of the fabricated products. The main exception is for heavyweight welded mesh fabric where the batch hot-dip process is commonly used to apply the metallic coating.

This Standard does not apply to some products that are employed for specialized uses, even though the same, or very similar, requirements and specifications may be applicable. One such product, welded wire fabric for life safety applications, is covered by AS/NZS 4389.

## NOTES

- 1 Advice and recommendations on information to be supplied by the purchaser at the time of enquiry and order are contained in the purchasing guidelines set out in Appendix A.
- 2 Means for determining compliance with this Standard are given in Appendix B.
- 3 Where the term 'fence' or 'fencing' is used in a non-specific context in this Standard, it implies any of the products and applications covered by this Standard.

## 1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

|      |   |
|------|---|
| AS   |   |
| 1199 | Sampling procedures and tables for inspection by attributes |
| 1391 | Methods for tensile testing of metals                       |