

Australian/New Zealand Standard™

**Hot-dip galvanized (zinc) coatings on
ferrous open sections, applied by an
in-line process**

STANDARDS
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AS/NZS 4791:2006

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MT-009, Metal Finishing. It was approved on behalf of the Council of Standards Australia on 19 June 2006 and on behalf of the Council of Standards New Zealand on 14 July 2006.

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The following are represented on Committee MT-009:

Australian Institute of Metal Finishing
Australian Aluminium Council
Australian Industry Group
Australian Paint Manufacturers' Federation
Department of Defence
Galvanizers Association of Australia
Powder Coaters Association
The Royal Australian Chemical Institute
Society of Automotive Engineers—Australasia

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RECONFIRMATION

OF

AS/NZS 4791:2006

Hot-dip galvanized (zinc) coatings on ferrous open sections, applied by an in-line process

RECONFIRMATION NOTICE

Technical Committee MT-009 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 MT-009:

Australasian Institute of Surface Finishing
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Steel Institute
Bureau of Steel Manufacturers of Australia
Galvanizers Association of Australia
Galvanizing Association of New Zealand
New Zealand Metal Roofing Manufacturers

NOTES

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MT-009, Metal Finishing, to supersede AS/NZS 4791:1999, *Hot-dip galvanized (zinc) coatings on ferrous open sections, applied by an in-line process*.

The objective of this revision is to revise the hot-dip galvanized coating specifications.

There are no International (ISO) Standards covering these specialized processes.

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.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard

Hot-dip galvanized (zinc) coatings on ferrous open sections, applied by an in-line process**1 SCOPE**

This Standard specifies requirements for the mass, quality and testing of galvanized coatings applied to ferrous open sections on all surfaces, using an in-line process that utilizes specialized equipment.

Matters relating to the quality, properties, or dimensional requirements of the open sections are outside the scope of this Standard.

NOTES:

- 1 Advice and recommendations on information to be supplied by the purchaser to the hot-dip galvanizer at the time of enquiry or order are contained in the purchasing guidelines set out in Appendix A.
- 2 Alternative means for determining compliance with this Standard are given in Appendix B.
- 3 General information on factors that affect the corrosion of galvanized steel is given in Appendix C.
- 4 For guidance on duplex protection systems below ground refer to Appendix G.
- 5 Electroplated zinc coatings applied to steel strip in manufacture into open sections are not covered by this Standard. The application of this Standard to these coatings is subject to agreement between the purchaser and the supplier.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

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| 1199 | Sampling procedures for inspection by attributes |
| 1199.0 | Part 0: Introduction to the ISO 2859 attribute sampling system |
| 1199.1 | Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection |
| 2331 | Methods of test for metallic and related coatings |
| 2331.1.3 | Method 1.3: Local thickness tests—Magnetic method |
| 2331.1.4 | Method 1.4: Local thickness tests—Magnetic induction and eddy current methods |
| 2331.2.1 | Method 2.1: Tests for average coating mass per unit area or for thickness—Dissolution methods—Strip and weigh, and analytical |
| 2331.2.3 | Method 2.3: Tests for average coating mass per unit area or for thickness—Hydrogen evolution method for zinc coatings |
| 2331.3.1 | Method 3:1: Corrosion and related property tests—Neutral salt spray (NSS) test |
| 2505 | Metallic materials |
| 2505.1 | Method 1: Sheet, strip and plate—Bend tests |
| 2706 | Numerical values—Rounding and interpretation of limiting values |

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| 2243 | Safety in laboratories |
| 2243.1 | Part 1: Planning and operational aspects |