

Australian/New Zealand Standard™

**Hot-dip galvanized (zinc) coatings on
fabricated ferrous articles**



AS/NZS 4680:2006

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 3 August 2006 and on behalf of the Council of Standards New Zealand on 11 August 2006.

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The following are represented on Committee MT-009:

Australasian Institute of Metal Finishing
Australian Aluminium Council
Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Paint Manufacturers' Federation
Bureau of Steel Manufacturers of Australia
Department of Defence
Galvanizers Association of Australia
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This Standard was issued in draft form for comment as DR 05584.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION
OF
AS/NZS 4680:2006
Hot-dip galvanized (zinc) coatings on fabricated ferrous articles

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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 Australian/Standards New Zealand Committee MT-009, Metal Finishing, to supersede AS/NZS 4680:1999, *Hot-dip galvanized (zinc) coatings on fabricated ferrous articles*.

The objective of this Standard is to specify the requirements for hot-dip galvanized (zinc) coatings applied to general fabricated ferrous products.

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

Although International Standard ISO 1461 covers the hot-dip galvanizing process for general fabricated ferrous articles, Committee MT-009 considered that the present document is more appropriate to Australian industry conditions and is more user friendly.

The term '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 fabricated ferrous articles****1 SCOPE**

This Standard specifies requirements and tests for hot-dip zinc coatings on fabricated ferrous articles including structural steel, steel reinforcements, steel sheet fabrications, assembled steel products, tubular fabrications, fabricated wire work, steel forgings, steel stampings, ferrous castings, nails and other small components.

This Standard applies to both centrifuged and non-centrifuged articles.

This Standard does not apply to products such as wire and welded wire fabric (see AS/NZS 4534), sheet (see AS 1397) or open sections (see AS/NZS 4791) and tube hot-dip galvanized in continuous, semi-continuous or specialized plants (see AS/NZS 4792).

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 Means for demonstrating compliance with this Standard are given in Appendix B.
- 3 After-treatment of hot-dip galvanized articles is not covered by this Standard. Such treatment (if any) should be specified separately by the purchaser.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 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
- 1214 Hot-dip galvanized coatings on threaded fasteners (ISO metric coarse thread series)
- 1397 Steel sheet and strip—Hot dipped zinc-coated or aluminium/zinc-coated
- 1627 Metal finishing—Preparation and pretreatment of surfaces
- 1627.4 Part 4: Abrasive blast cleaning of steel
- 1815 Metallic materials—Rockwell hardness test (series)
- 1816 Metallic materials—Brinell hardness test (series)
- 1817 Metallic materials—Vickers hardness test (series)
- 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