

Australian Standard<sup>®</sup>

**Continuous hot-dip metallic coated steel  
sheet and strip—Coatings of zinc and  
zinc alloyed with aluminium and  
magnesium**



This Australian Standard® was prepared by Committee MT-001, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 18 August 2011. This Standard was published on 15 September 2011.

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The following are represented on Committee MT-001:

- Australian Building Codes Board
  - Australasian Corrosion Association
  - Australian Foundry Institute
  - Australian Institute of Architects
  - Australian Steel Association
  - Australian Steel Institute
  - Bureau of Steel Manufacturers of Australia
  - Materials Australia
  - New Zealand Heavy Engineering Research Association
  - Society of Automotive Engineers—Australasia
  - The University of Sydney
- 

This Standard was issued in draft form for comment as DR AS 1397.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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**Continuous hot-dip metallic coated steel  
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## PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee MT-001, Iron and Steel, to supersede AS 1397—2001, *Steel sheet and strip—Hot-dipped zinc-coated or aluminium/zinc-coated*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

This Standard upgrades the requirements of AS 1397—2001 and introduces three new coating types:

- (a) Zinc and aluminium (Type ZA).
- (b) Zinc, aluminium and magnesium (Type ZM).
- (c) Aluminium, zinc and magnesium (Type AM).

Committee MT-001 has sought to align with the following international and national Standards, where applicable:

ISO 9364:2006, *Continuous hot-dip aluminium/zinc-coated steel sheet of commercial, drawing and structural qualities*

ISO 4998:2011, *Continuous hot-dip zinc-coated carbon steel sheet of structural quality*

ISO 3575:2011, *Continuous hot-dip zinc-coated carbon steel sheet of commercial and drawing qualities*

ASTM A1046/A1046M-10a, *Specification for steel sheet, zinc-aluminium-magnesium alloy-coated by the hot-dip process*

ASTM A902-09, *Terminology relating to metallic coated steel products*

ASTM A875/875M-09a, *Specification for steel sheet, zinc-5% aluminium alloy-coated by the hot-dip process*

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.....	4
1.2 NORMATIVE DOCUMENTS .....	4
1.3 DEFINITIONS.....	5
1.4 SURFACE CONDITIONING AND SURFACE TREATMENT.....	6
1.5 PRODUCT DESIGNATION .....	7
1.6 ROUNDING OF TEST RESULT VALUES .....	10
1.7 MARKING .....	10
<b>SECTION 2 THE STEEL BASE</b>	
2.1 SCOPE OF SECTION .....	11
2.2 CHEMICAL COMPOSITION .....	11
2.3 TENSILE TEST .....	11
2.4 BEND TEST .....	12
2.5 DIMENSIONAL TOLERANCES.....	12
<b>SECTION 3 THE COATING</b>	
3.1 SCOPE OF SECTION .....	14
3.2 DETERMINATION OF COATING MASS.....	14
3.3 DETERMINATION OF COATING ADHESION .....	15
<b>APPENDICES</b>	
A PURCHASING GUIDELINES .....	19
B PRODUCT CONFORMITY .....	21
C INFORMATION ON COATING THICKNESS DETERMINATION AND ON THE THICKNESS/MASS RELATIONSHIP BETWEEN BASE STEEL AND COATING .....	23
D INFORMATION AND GUIDELINES ON THE SELECTION OF STEEL GRADES AND COATING CLASSES .....	27
<b>BIBLIOGRAPHY .....</b>	<b>31</b>

## STANDARDS AUSTRALIA

## Australian Standard

**Continuous hot-dip metallic coated steel sheet and strip—Coatings of zinc and zinc alloyed with aluminium and magnesium**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements for continuously hot-dip metallic coated sheet steel and strip supplied in thicknesses up to and including 5.0 mm.

Requirements for product conformity to this Standard are given in Appendix B.

Requirements covered in this Standard are as follows:

- (a) Formability grades of steel.
- (b) Structural grades of steel.
- (c) Classes of zinc coating, including differential coatings.
- (d) Classes of zinc coating converted to zinc/iron alloy.
- (e) Classes of zinc/aluminium coatings.
- (f) Classes of zinc/aluminium/magnesium alloy coating.
- (g) Classes of aluminium/zinc alloy coating.
- (h) Classes of aluminium/zinc/magnesium alloy coating.
- (i) Surface finish.

## NOTES:

- 1 Advice and recommendations on information to be supplied by the purchaser at the time of enquiry or order are contained in Appendix A.
- 2 The specified requirements apply to the full length and full width of the product supplied, unless otherwise indicated.
- 3 Within the description of the classes of coatings, the majority element present is listed first, followed by the next major element and followed by a third element if appropriate.

**1.2 NORMATIVE DOCUMENTS**

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

## AS

- |          |   |
|----------|---|
| 1391     | Metallic materials—Tensile testing of ambient temperature   |
| 2331     | Methods of test for metallic and related coatings   |
| 2331.2.1 | Method 2.1: Tests for average coating mass per unit area or for thickness<br>Dissolution methods—Strip and weigh and analytical |
| 2331.2.3 | Method 2.3: Tests for average coating mass per unit area or for thickness—<br>Hydrogen evolution method for zinc coatings       |
| 2505     | Metallic materials  |
| 2505.1   | Part 1: Sheet, strip and plate—Bend tests   |

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