

Australian Standard™

Steel sheet and strip—Hot-dip zinc-coated or aluminium/zinc-coated

This Australian Standard was prepared by Committee MT-001, Iron and Steel. It was approved on behalf of the Council of Standards Australia on 30 April 2001 and published on 5 June 2001.

The following interests are represented on Committee MT-001:

Australasian Railway Association
Australian Building Codes Board
Australian Foundry Institute
Australian Industry Group
Bureau of Steel Manufacturers of Australia
Institute of Materials Engineering Australasia
Society of Automotive Engineers, Australasia

Additional interests:

Metal Building Products Manufacturers Association
Tube and pipeline manufacturers

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 Standards may also be withdrawn.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 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, or write to the Chief Executive, Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001.

Australian Standard™

Steel sheet and strip—Hot-dip zinc-coated or aluminium/zinc-coated

Originated as part of AS A20—1934.
Previous edition AS 1397—1993.
Fifth edition 2001.

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 3913 X

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MT-001, Iron and Steel, to upgrade the requirements of AS 1397—1993. It now includes requirements for differential coatings.

This Standard is the result of a consensus among Australian and New Zealand representatives of the Joint Committee to produce it as an Australian Standard.

In this edition, the zinc and aluminium/zinc-alloy coating designations align with those adopted in the following international Standards:

ISO

- 3575:1996 Continuous hot-dip zinc-coated carbon steel sheet of commercial, lock-forming and drawing qualities
- 4998:1996 Continuous hot-dip zinc-coated carbon steel sheet of structural quality
- 9364:1991 Continuous hot-dip aluminium/zinc-coated steel sheet of commercial, lock-forming and structural qualities

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.

CONTENTS

	<i>Page</i>
SECTION 1 SCOPE AND GENERAL	
1.1 SCOPE.....	4
1.2 REFERENCED DOCUMENTS.....	4
1.3 DEFINITIONS.....	5
1.4 PRODUCT DESIGNATION	6
1.5 ROUNDING OF TEST RESULT VALUES	7
1.6 MARKING	8
SECTION 2 THE STEEL BASE	
2.1 SCOPE.....	9
2.2 CHEMICAL COMPOSITION	9
2.3 TENSILE TEST.....	9
2.4 BEND TEST	10
2.5 DIMENSIONAL TOLERANCES.....	10
SECTION 3 THE COATING	
3.1 SCOPE.....	12
3.2 DETERMINATION OF COATING MASS.....	12
3.3 DETERMINATION OF COATING ADHESION.....	12
APPENDICES	
A PURCHASING GUIDELINES	14
B MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS STANDARD	16
C INFORMATION ON COATING THICKNESS DETERMINATION AND ON THE THICKNESS/MASS RELATIONSHIP BETWEEN BASE STEEL AND COATING	18
D INFORMATION AND GUIDELINES ON THE SELECTION OF STEEL GRADES AND COATING CLASSES	22

STANDARDS AUSTRALIA

Australian Standard**Steel sheet and strip—Hot-dip zinc-coated or aluminium/zinc-coated**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for hot-dip zinc-coated or aluminium/zinc-coated steel sheet and strip, supplied in thicknesses up to and including 5.0 mm.

This Standard specifies requirements for steel grades, coating classes and surface finish, 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 aluminium/zinc alloy coating.
- (f) 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 Alternative means for determining compliance with this Standard are given in Appendix B.
- 3 The specified requirements apply to the full length and full width of the product supplied, unless otherwise indicated.

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
1399	Guide to AS 1199—Sampling procedures and tables for inspection by attributes
2331	Methods of test for metallic and related coatings—Average thickness tests
2331.2.1	Method 2.1: Dissolution methods—Strip and weight, and analytical
2331.2.3	Method 2.3: Hydrogen evolution method for zinc coatings
2505	Methods for bend and related testing of metals
2505.1	Part 1: Sheet, strip and plate
2706	Numerical values—Rounding and interpretation of limiting values
AS/NZS	
1050	Methods for the analysis of iron and steel (all parts)
1365	Tolerances for flat-rolled steel products