

Australian Standard™

**Electrogalvanized (zinc) coatings on
ferrous hollow and open sections**

This Australian Standard was prepared by Committee MT-009, Metal Finishing. It was approved on behalf of the Council of Standards Australia on 3 June 2003 and published on 11 July 2003.

The following are represented on Committee MT-009:

Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Institute of Metal Finishing
Australian Paint Manufacturers Association
Department of Defence
Galvanizers Association of Australia
Institute of Materials Engineering Australia
Powder Coaters Association
The Royal Australian Chemical Institute
Society of Automotive Engineers—Australasia
Telstra Corporation

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 Standards may also be withdrawn.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 Global 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 1501.

This Standard was issued in draft form for comment as DR 02360 and DR 02361.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 4750—2003

Electrogalvanized (zinc) coatings on ferrous hollow and open sections

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.

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 20 March 2017.

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

Currently in preview, click buy full vers.

Australian Standard™

**Electrogalvanized (zinc) coatings on
ferrous hollow and open sections**

Formulated as AS 4750(Int)—2000 and AS 4751(Int)—2000.
AS 4750(Int)—2000 and AS 4751(Int)—2000 revised, amalgamated
and redesignated as AS 4750—2003.

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 5398 1

PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MT-009, Metal Finishing, to supersede AS 4750(Int)—2000, *Electrogalvanized (zinc) coatings on ferrous hollow sections* and AS 4751(Int)—2000, *Electrogalvanized (zinc) coatings on ferrous open sections*. 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.

Attention is drawn to the fact that these Interim Australian Standards have been combined by the Committee due to their similar nature so that the new Standard will now cover hollow and open sections.

The objective of this Standard is to specify requirements for coatings on ferrous hollow and open sections, manufactured from electrogalvanized zinc strip as distinct from hot-dip galvanized strip.

There are no International (ISO) Standards that cover these electrogalvanizing processes.

Related Standards are AS/NZS 4791, *Hot-dip galvanized (zinc) coatings on ferrous open sections, applied by an in-line process* and AS/NZS 4792, *Hot-dip galvanized (zinc) coatings on ferrous hollow sections, applied by a continuous or a specialized 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>
1 SCOPE	4
2 REFERENCED DOCUMENTS	4
3 DEFINITIONS	5
4 PROCESS	6
5 APPEARANCE AND FREEDOM FROM DEFECTS	6
6 DESIGNATION	7
7 SELECTION OF TEST SPECIMENS	7
8 ZINC COATING MASS	7
9 ADHERENCE OF COATING	9
10 WELD COATING	10

APPENDICES

A PURCHASING GUIDELINES	11
B MEANS OF DEMONSTRATING COMPLIANCE WITH THIS STANDARD	12
C GENERAL INFORMATION ON FACTORS THAT AFFECT THE CORROSION OF ZINC COATED STEEL	14
D RENOVATION OF DAMAGED AREAS	17
E TRANSPORT AND STORAGE OF ELECTROGALVANIZED SECTIONS	18
F DETERMINATION OF COATING MASS AND LOCAL THICKNESS	19

STANDARDS AUSTRALIA

Australian Standard**Electrogalvanized (zinc) coatings on ferrous hollow and open sections****1 SCOPE**

This Standard specifies requirements for the classification, mass, quality and testing of zinc coatings on welded hollow steel sections and on open steel sections produced from electrogalvanized strip.

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

NOTES:

- 1 Advice and recommendations on information to be supplied by the purchaser 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 For requirements for the basis metal of hollow sections see relevant product Standards, e.g. AS 1074 and AS 1163.
- 4 General information on factors that affect the corrosion of zinc coated steel is given in Appendix C.
- 5 In this Standard, hollow and open sections will be referred to as 'sections' unless circumstances require clarification.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|----------|---|
| 1074 | Steel tubes and tubulars for ordinary service |
| 1163 | Structural steel hollow sections |
| 1199 | Sampling procedure 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 |
| 2331.1.1 | Method 1.1: Local thickness tests—Micrographic examination of cross-sections |
| 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 |
| 2331.2.2 | 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 | Methods for bend and related testing of metals |
| 2505.1 | Method 1: Sheet, strip and plate |
| 2706 | Numerical values—Rounding and interpretation of limiting values |