AS 1242—1985

Australian Standard®

ZINC INGOTS

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The following interests are represented on Committee MT/4:

Australian Zinc Development Association

Confederation of Australian Industry

Department of Defence

Diecasting Institute of Australia

Electricity Supply Association of Australia

Federal Chamber of Automotive Industries

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Australian Standard®

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PREFACE

This edition of this standard was prepared by the Association's Committee on Zinc and Zinc Alloys, to supersede AS 1242 — 1973. It applies to three grades of zinc metal in ingot form made from ore or other material by a process of distillation or by electrolysis.

During the preparation of this standard, the committee considered Draft International Standard ISO/DIS 752, Zinc Ingots, but resolved that the Australian standard could not align with it, owing to differences in impurities and impurity levels.

In this edition, Appendix A has been added which presents purchasing guidelines, including contractual requirements formerly included in the body of the standard, and which directs attention to matters requiring consideration at the time of enquiry and/or order.

CONTENTS

STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard for ZINC INGOTS

1 SCOPE. This standard specifies requirements for three grades of zinc metal in ingot form made from ore or other material by a process of distillation or by electrolysis.

NOTE: Guidelines to purchasers on requirements that must be specified by the purchaser and those that must be agreed at the time of enquiry and/or order are given in Appendix A.

2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1329 Methods for the Analysis of Zinc and Zinc Alloys

AS 2347 Method for the Sampling of Zinc Metal and Zinc Alloys for Chemical Analysis

AS 2706 Numerical Values—Rounding and Interpretation of Limiting Values

BS 3436 Ingot Zinc

ISO 752 Zinc Ingots

ASTM B6 Zinc (Slab Zinc)

DIN 1706 Zinc

JIS H2107 Zinc Metal

3 DESIGNATION. The grade designation of the zinc, as shown in column 1 of Table 1, shall consist of the international chemical symbol of the element (Zn), followed by a number indicating the minimum zinc content, e.g. Zn 99.99.

4 CHEMICAL COMPOSITION. Maximum impurities in the zinc shall conform to the limits specified in Table 1.

5 FREEDOM FROM DEFECTS. The material shall be free from harmful inclusions and other defects detrimental to its subsequent processing.

6 IDENTIFICATION. Each ingot shall be distinctly marked to indicate its grade and identity of the manufacturer.

NOTES:

1. Ingots may be supplied unmarked (see Paragraph A1 of Appendix A).
2. Manufacturers who place the number of this Australian standard on zinc ingots, on packaging or on literature related thereto should ensure that the products are manufactured to comply with the standard.

7 INTERPRETATION OF SPECIFIED LIMITING VALUES. For the purpose of assessing compliance with this standard, the specified limiting values herein shall be interpreted in accordance with the rounding method described in AS 2706, i.e. the observed or calculated value shall be rounded to the same number of figures as in the specified limiting value and then compared with the specified limiting value. For example, for specified limiting values of 2.5, 2.50, and 2.500, the observed or calculated value would be rounded respectively to the nearest 0.1, 0.01, or 0.001. (See Appendix B.)

TABLE 1

MAXIMUM IMPURITIES

Designation	Impurities, percent maximum							
	Lead	Cadmium	Iron	Tin	Copper	Thallium	Indium	Total
Zn 99.99	0.003	0.003	0.003	0.001	0.002	0.001	0.0005	0.010
Zn 99.95	0.03	0.02	0.01	0.001	0.002	—	—	0.05
Zn 98.5	1.4	0.20	0.05	—	—	—	—	1.50

NOTES.

1. If a limit for aluminium or silicon is required, it is recommended that 0.005 percent maximum be considered.
2. These specification limits do not preclude the possible presence of other unnamed elements. However, analysis should regularly be made only for those elements listed in the table. Zinc is not analysed for, and is determined by the difference between the sum of the impurities analysed and 100 percent. Analysis may be required and limits may need to be established for elements not specified (see Paragraph A1 of Appendix A).