AS 1329.6—1994
Reconfirmed 2016

Australian Standard®

Methods for the analysis of zinc and zinc alloys

Part 6: Determination of copper content (0.25% to 1.25%)—Flame atomic absorption spectrometric method

This Australian Standard was prepared by Committee CH/10, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 28 June 1994 and published on 19 September 1994.

The following interests are represented on Committee CH/10:

Aluminium Development Council
Australasian Institute of Mining and Metallurgy
Australian Lead Development Association
Bureau of Steel Manufacturers
Copper Technical Data Centre
National Association of Testing Authorities, Australia
Railways of Australia Committee

Additional interests participating in preparation of Standard:

Analytical laboratories
Department of Defence, Materials Research Laboratory
Steel manufacturers

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1329.6—1994

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RECONFIRMATION NOTICE

Technical Committee CH-010 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.

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The following are represented on Technical Committee CH-010:

Australian Aluminium Council
Bureau of Steel Manufacturers of Australia
International Copper Association Australia
International Precious Metals Institute
National Association of Testing Authorities Australia

NOTES

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PREFACE

This Standard was prepared by the Standards Australia Committee CH/10 on the Analysis of Metals to supersede AS 1329.6—1981, *Methods for the analysis of zinc and zinc alloys*, Part 6: *Determination of copper content (0.25 percent to 1.25 percent)—Flame atomic absorption spectrometric method*.

CONTENTS

Page

STANDARDS AUSTRALIA

Australian Standard

Methods for the analysis of zinc and zinc alloys

Part 6: Determination of copper content (0.25% to 1.25%)—Flame atomic absorption spectrometric method

1 SCOPE This Standard sets out a flame atomic absorption spectrometric method for the determination of the copper content of zinc and zinc alloys. The method is suitable for the determination of copper content in the range 0.25% to 1.25%. The method is suitable for the determination of copper in diecast alloys containing a maximum of:

Aluminium	4.3%
Cadmium	0.003%
Iron	0.08%
Lead	0.005%
Magnesium	0.08%
Tin	0.001%

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

2134 Recommended practice for chemical analysis by atomic absorption spectrometry

2134.1 Part 1: Flame atomic absorption spectrometry

2162 Code of practice for the use of volumetric glassware

2164 One-mark volumetric flasks

2166 One-mark pipettes

2167 Straight pipettes

2347 Method for the sampling of zinc metal and zinc alloys for chemical analysis

2850 Chemical analysis—Interlaboratory test programs—For determining precision of analytical method(s)—Guide to the planning and conduct

BS

4237 Report on reproducibility of methods of chemical analysis used in the iron and steel industry

3 PRINCIPLE The sample is dissolved in nitric acid and the copper determined by flame atomic absorption spectrometry.

4 REAGENTS

4.1 General requirements During the analysis, only reagents of recognized analytical reagent grade, and only distilled water or water of equivalent purity, shall be used. Solutions shall be freshly prepared and, where necessary, filtered.

4.2 Special reagents

4.2.1 *Zinc metal* Zinc metal (>99.99% zinc) containing less than 1 μg of copper per g.

4.2.2 *Nitric acid (ρ_{20} 1.42 g/m*L)