AS 5006.2—2002
Reconfirmed 2016

Australian Standard™

Silver and silver bearing alloys

Part 2: Determination of silver content (1% to 99%)—Gravimetric (fire assay) method

Standards Australia

This Australian Standard was prepared by Committee CH-010, Analysis of Metals. It was approved on behalf of the Council of Standards Australia on 31 July 2002 and published on 10 October 2002.

The following are represented on Committee CH-010:

AMDEL

Australasian Institute of Mining and Metallurgy

Australian Aluminium Council

Institute of Materials Engineering Australasia

National Association of Testing Authorities Australia

Royal Australian Chemical Institute

University of New South Wales

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This Standard was issued in draft form for comment as DR 01178.

STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 5006.2—2002
Silver and silver bearing alloys
Part 2: Determination of silver content (0.1% to 99.9%)—Gravimetric (fire assay) method

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.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 22 November 2016.

The following are represented on Technical Committee CH-010:

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

NOTES

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand CH-010, Analysis of Metals. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of this Standard is to set out a gravimetric (fire assay) method for the determination of silver content in silver and silver bearing alloys.

The following laboratories participated in the Inter-laboratory test program, to provide the data given in Table 1:

Australian Gold Refineries
Golden West
Misima Mines Pty Ltd
Pacific Precious Metals
SGS

This Standard is Part 2 of a series comprising:

AS	
5006	Silver and silver bearing alloys
5006.1	Part 1: Determination of silver content (0.1% to 99.9%)—Titrimetric (potentiometric) method
5006.2	Part 2: Determination of silver content (1% to 99%)—Gravimetric (fire assay) method

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.

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Australian Standard

Silver and silver bearing alloys

Part 2: Determination of silver content (1% to 99%)—Gravimetric (fire assay) method

1 SCOPE

This Standard sets out a gravimetric procedure (fire assay) for the determination of silver content in silver bearing alloys. This method is applicable to alloys containing 1% to 99% silver and less than 1% platinum, 3% palladium, 2% nickel, 0.05% rhodium and 0.05% tungsten.

NOTES:

1 If gold, platinum or palladium are present they are retained with the silver. Consequently they need to be quantified and the silver content appropriately adjusted. The gold content can be quantified using AS 3515.1 or AS 3515.2 as appropriate.

2 Recommended methods of sampling dore bullion for use with this Standard are provided in Appendix A.

3 The presence of the following elements may cause difficulties in obtaining a homogeneous sample: iron, lead, antimony, nickel or arsenic.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2243 Safety in laboratories (series)

2508 Safe storage and handling information cards for hazardous materials (series)

2830 Good laboratory practice

2830.1 Part 1: Chemical analysis

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

3515 Gold and gold bearing alloys

3515.1 Part 1: Determination of gold content (less than 30%)—Gravimetric method

3515.2 Part 2: Determination of gold content (30%–99.5%)—Gravimetric method

ISO

3696 Water for analytical laboratory use—Specification and test methods

5725 Accuracy (trueness and precision) of measurement methods and results (series)

3 DEFINITIONS

For the purpose of this Standard, the definitions below apply.

3.1 Cupellation

The process by which the silver is separated from the added lead and other base metals with which it is alloyed.

