

Australian Standard™

**Galvanic (sacrificial) anodes for
cathodic protection**

This Australian Standard was prepared by Committee MT-014, Corrosion of Metals. It was approved on behalf of the Council of Standards Australia on 24 September 2003 and published on 24 November 2003.

The following are represented on Committee MT-014:

- Australasian Corrosion Association
- Australasian Institute of Metal Finishing
- Australian Chamber of Commerce and Industry
- Australian Electrolysis Committee
- The Australian Gas Association
- Australian Paint Manufacturers' Federation
- Australian Paint Approval Scheme
- Austrroads
- Bureau of Steel Manufacturers of Australia
- Corrosion Prevention Centre
- Department of Defence
- Division of Building, Construction and Engineering, CSIRO
- Galvanizers Association of Australia
- Telstra
- United Water International
- Water Services Association of Australia

Additional interests participating in the preparation of this Standard:

- Corrosion consultants
- Department of Minerals and Energy
- Gas and Fuel Corporation of Victoria
- Hunter Water Board
- Petroleum refineries
- State Electricity Commission of Victoria
- Water Authority of Western Australia
- Water Resources Commission, Queensland

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Australian Standard™

**Galvanic (sacrificial) anodes for
cathodic protection**

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PREFACE

The Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MT-014, Corrosion of Metals to supersede AS 2239—1993, *Galvanic (sacrificial) anodes for cathodic protection*. 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 specify the requirements for those common anode alloys available in Australia for use in cathodic protection systems, such as those specified in the AS 2832 series of Standards.

The objective of this revision is to include new specifications and chemical composition limits for anodes.

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 informative and guidance.

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STANDARDS AUSTRALIA

Australian Standard**Galvanic (sacrificial) anodes for cathodic protection**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for galvanic (sacrificial) anodes for use in the cathodic protection of metals against corrosion. It specifies the composition of suitable alloys for magnesium, zinc and aluminium anodes and gives details of shapes and design features of some commonly used anodes. It also includes details of backfill compositions and properties, for buried magnesium and zinc anodes.

NOTE: 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.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|--------|---|
| 1042 | Direct-acting indicating electrical measuring instruments and their accessories |
| 1152 | Specification for test sieves |
| 1627 | Metal finishing—Preparation and pretreatment of surfaces |
| 1627.9 | Part 9: Pictorial surface preparation standards for painting steel surfaces |
| 2706 | Numerical values—Rounding and interpretation of limiting values |
| 2832 | Cathodic protection of metals |
| 2832.4 | Part 4: Internal surfaces |

AS/NZS

- | | |
|----------|---|
| 1125 | Conductors in insulated electric cables and flexible cords |
| 3008 | Electrical installations—Selection of cables |
| 3008.1.1 | Part 1.1: Cables for alternating voltages up to and including 0.6/1 kV—Typical Australian installation conditions |

ASTM

- | | |
|-------|---|
| D1141 | Standard practice for the preparation of substitute ocean water |
|-------|---|

MIL-A

- | | |
|--------|--|
| 18001k | Anodes, corrosion preventive, zinc; slab disc and rod shaped |
|--------|--|

1.3 DEFINITIONS

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

1.3.1 Anode (in general)

An electrode, placed in the electrolyte, to apply cathodic protection to the structure.