

Australian Standard™

**Electroplated coatings—Nickel and
chromium**



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This Australian Standard was prepared by Committee MT-009, Metal Finishing. It was approved on behalf of the Council of Standards Australia on 23 February 2004 and published on 2 April 2004.

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Australasian Aluminium Council
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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 1192—2004

Electroplated coatings—Nickel and chromium

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NOTES

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Australian Standard™

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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 1192—1982, *Electroplated coatings—Nickel and chromium*. 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 nickel and chromium electroplating.

The objective of this revision is to introduce the requirements for stainless steel for the 30 and 400 series and the service condition numbers, which relate to the corrosion categories that are specified in AS/NZS 2312.

In preparing this Standard cognisance was taken of the following Standards:

AS/NZS

2312 Guide to the protection of structural steel against atmospheric corrosion by the use of protection coating

ISO

425 Electroplated coatings of nickel plus chromium on plastic materials

9223 Corrosion of metals and alloys—Corrosivity of atmosphere—Classification

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.

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STANDARDS AUSTRALIA

Australian Standard
Electroplated coatings—Nickel and chromium

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for electroplated coatings of nickel and nickel plus chromium on steel or iron, zinc alloy, copper or copper alloy, aluminium or aluminium alloys. It also specifies requirements for coatings of nickel-iron alloys containing a maximum iron content of 25 percent, and coatings incorporating a copper undercoat. It does not preclude the use of gold, copper, brass or other metals plated over nickel.

This Standard does not apply to the following:

- (a) Coatings applied to screw threads (with tolerances).
- (b) Coatings applied to sheet, strip or wire in the unfabricated form, or to coil springs.
- (c) Coatings applied as an undercoat to hard chromium coatings for engineering applications, see AS 2453.
- (d) Coatings applied to plastics, see AS 1406.

Supplementary information to be supplied with the enquiry or order is specified in Appendix A.

NOTE: The means for demonstrating compliance with the Standard are shown in Appendix B.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- | | |
|-----------|---|
| 1199 | Sampling procedures for inspection 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 |
| 1247 | Metallic coatings—Rating of test specimens and manufactured articles subject to corrosion tests |
| 1406 | Electroplated coatings—Nickel and chromium on plastics for decorative applications |
| 2331 | Methods of test for metallic and related coatings |
| 2331.1.1 | Method 1.1: Local thickness tests—Micrographic examination of cross-sections |
| 2331.1.2 | Method 1.2: Local thickness tests—Coulometric method |
| 2331.3.2 | Method 3.2: Corrosion and related property tests—Acetic acid salt spray test (ASS test) |
| 2331.3.3 | Method 3.3: Corrosion and related property tests—Copper accelerated acetic acid salt spray test (CASS test) |
| 2331.3.10 | Method 3.10: Corrosion and related property tests—Cracks and pores in chromium |
| 2331.4.1 | Method 4.1: Physical tests—Qualitative adhesion tests |