

Australian Standard™

**Electroplated coatings—Nickel and
chromium on plastics for decorative
applications**



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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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Australian Aluminium Council
Australian Chamber of Commerce and Industry
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RECONFIRMATION

OF

AS 1406—2004

Electroplated coatings—Nickel and chromium on plastics for decorative applications

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NOTES

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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 1406—1982, *Electroplated coatings—Nickel and chromium on plastics for decorative applications*. 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 on plastics.

The objective of this revision is to introduce the service condition numbers, which relate to the corrosion categories that are specified in AS/NZS 2312.

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

AS/NZS 2312 Guide to the protection of structural steel against atmospheric corrosion by the use of protective coating

ISO 4525 Electroplated coatings of nickel plus chromium on plastic materials

ISO 9223 Corrosion of metals and alloys—Corrosivity of atmospheres—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 on plastics for decorative applications

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for electroplated coatings of nickel and nickel plus chromium on plastics for decorative applications. 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.

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

NOTES:

- 1 Not all plastics may be successfully electroplated so it is recommended that the suppliers should be consulted.
- 2 Plastic items to be coated should have low residual stress. To achieve this condition, plastic mouldings, extrusions etc, may require to be stress-relieved or annealed prior to electroplating.
- 3 Guidance on the means of demonstrating compliance with the Standard is given in Appendix B.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

1199	Sampling procedure for inspection by attributes
1190.0	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
2331	Methods of test for metallic and related coatings
2331.1.1	Method 1.1: Local thickness tests—Micrographic examinations 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
2331.4.2	Method 4.2: Physical tests—Ductility test
2331.4.5	Method 4.5: Physical tests—Electroplated plastics—Thermal cycling tests