

Australian Standard™

**Metal finishing—Recommended
sampling plans for the inspection and
testing of coatings
(ISO 4519:1980, MOD)**

This Australian Standard was prepared by Committee MT-009, Metal Finishing. It was approved on behalf of the Council of Standards Australia on 9 May 2003 and published on 27 June 2003.

The following are represented on Committee MT-009:

Australian Institute of Metal Finishing
Australian Chamber of Commerce and Industry
Australian Industry Group
Department of Defence
Galvanizers Association of Australia
Institute of Materials Engineering Australia
Powder Coaters Association
The Royal Australian Chemical Institute
Society of Automotive Engineers—Australasia
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This Standard was issued in draft form for comment as DR 03031.

STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2483—2003

**Metal finishing—Recommended sampling plans for the inspection and testing of
coatings (ISO 4519:1980, MOD)**

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 20 March 2017.

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Australian Chamber of Commerce and Industry
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Galvanizing Association of New Zealand
New Zealand Metal Roofing Manufacturers

NOTES

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Originated as AS 2483—1982.
Second edition 2003.

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Published by Standards Australia International Ltd
GPO Box 5420, Sydney, NSW 2001, Australia
ISBN 0 7337 5321 3

PREFACE

This Standard was prepared by Standards Australia Committee MT-009, Metal Finishing to supersede AS 2483—1982, *Metal finishing—Recommended sampling plans for the inspection and testing of coatings*.

This Standard is an adoption with national modifications and is reproduced from ISO 4519:1980, *Electrodeposited metallic coatings and related finishes—Sampling procedures for inspection by attributes*.

Variations to the ISO text for Australia are set out in Appendix ZZ. Changes to the ISO text are indicated by a marginal bar.

This Standard is a modification of ISO 4519 in which an additional sampling table has been included in Appendix ZZ so as to conform with established Australian practices for sampling tables.

In 3.10 Percent defective, the equation is incorrect and should read as follows:

$$\text{Percent defective} = \frac{\text{number of defectives}}{\text{number of units inspected}} \times 100$$

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this International Standard’ should read ‘this Australian Standard’.
- (c) A full point should be subjected for a comma to a decimal marker.

None of the documents referenced in this Standard has been adopted as an Australian Standard.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

AUSTRALIAN STANDARD

Metal finishing—Recommended sampling plans for the inspection and testing of coatings (ISO 4519:1980, MOD)

1 Scope and field of application

This International Standard establishes sampling plans and procedures for inspection by attributes of electrodeposited metallic coatings. It may be applied to related finishes by agreement between the supplier and the purchaser. It is based on ISO 2859 (see also Addendum 1 to ISO 2859).

The sampling plans in this International Standard are applicable, but not limited, to the inspection of end items, components, materials in process and finished products in storage. The plans are intended primarily to be used for a continuing series of lots, but they may also be used for the inspection of isolated lots. However, the assurance given for isolated lots is lower than that given for a continuing series of lots.

This International Standard is not applicable to the sampling and testing of mechanical fasteners having electrodeposited metallic coatings or related finishes, in all the circumstances for which procedures for these components are specified in ISO 3269.

The sampling plans given in this International Standard are based on AQLs¹⁾ of 1,5 and 4,0 %. Other AQLs may be used if specified in the product specification, in which case reference should be made to ISO 2859 and its Addendum 1.

It is also possible to formulate sampling plans based on inspection by variables.

2 References

ISO 2859, *Sampling procedures and tables for inspection by attributes*.

ISO 2859/Add. 1, *General information on sampling inspection, and guide to the use of the ISO 2859 tables*.

ISO 3269, *Fasteners — Acceptance inspection*.²⁾

ISO 3534, *Statistics — Vocabulary and symbols*.

3 Definitions

NOTE — Some of these definitions are not identical with those in ISO 3534 but have been modified to make them easier to understand by non-statisticians and to make them more readily applicable to electroplated items.

3.1 inspection : The process of measuring, examining, testing, or otherwise comparing the unit of product (see 3.4) with the requirements.

3.2 attribute : A characteristic or property which is appraised in terms of whether it does or does not exist (for example go or no-go) with respect to a given requirement.

3.3 inspection by attribute(s) : Inspection whereby either the unit of product is simply classified as defective or non-defective, or the number of defects in the unit of product is counted, with respect to one or more given requirements.

3.4 unit of product : The object inspected either to determine its classification as defective or non-defective, or to count the number of defects. It may be a single article, a pair, a set, a length, an area, an operation, a volume, a component of an end item or the end product itself. The unit of product may or may not be the same as the unit of purchase, supply, production, or shipment.

3.5 acceptance number : The maximum number of defects or defective units in the sample that will permit acceptance of the inspection lot.

3.6 rejection number : The minimum number of defects or defective units in the sample that will cause rejection of the inspection lot.

3.7 inspection lot : A collection of coated articles that are of the same kind, that have been produced to the same specifications, that have been coated by a single supplier at one time, or at approximately the same time, under essentially identical conditions and that are submitted for acceptance or rejection as a group.

1) AQL = Acceptable Quality Level.

2) At present at the stage of draft.