

STANDARDS AUSTRALIA

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RECONFIRMATION

OF

AS 2331.3.9—2001

Methods of test for metallic and related coatings

Method 3.9: Corrosion and related property tests—Metallic coatings—Porosity tests—Ferroxyl test

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RECONFIRMATION NOTICE

Technical Committee MT-009 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.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

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

The following are represented on Technical Committee MT-009:

Australasian Institute of Surface Finishing  
Australian Chamber of Commerce and Industry  
Australian Industry Group  
Australian Steel Institute  
Bureau of Steel Manufacturers of Australia  
Galvanizers Association of Australia  
Galvanizing Association of New Zealand  
New Zealand Metal Roofing Manufacturers

## NOTES

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## Methods of test for metallic and related coatings

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#### PREFACE

This Standard has been prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee MT-009, Metal Finishing, to supersede AS 2331.3.9—1981, *Methods of test for metallic and related coatings, Method 3.9: Corrosion and related property tests—Ferricyanide porosity test—Paper method*. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard. The objective of this revision is to upgrade the requirements so that they closely align with ISO 10309:1994, *Metallic coatings—Porosity tests—Ferroxyl test*.

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#### METHOD

##### 1 SCOPE

This Standard specifies a method of revealing pores or other discontinuities in metallic coatings that are not visibly affected by ferricyanide and chloride ions during the test period and that are cathodic to iron and steel. This method is especially useful for thick, hard chromium coatings used for wear resistance.

##### NOTES:

- 1 With some coating materials, a very thin layer is dissolved by the sodium chloride solution during a 10 minute application period (see Clause 5.2.3). The impact of such dissolution is that potential porosity, i.e. pores that have been covered over by very thin layers, are sometimes re-exposed. Experience has shown that such potential porosity is frequently re-exposed during actual service.
- 2 The test procedures described in this Standard do not necessarily include all of the precautions required to satisfy health and safety aspects. Care should be taken to ensure that the procedures are carried out only by people who have received suitable training. Guidance in the handling and use of hazardous chemicals is given in AS/NZS 2243.1 and AS/NZS 2243.2.