STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2331.4.1—2001

Methods of test for metallic and related coatings

Method 4.1: Physical tests—Qualitative adhesion tests

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

AS 2331.4.1—2001
Reconfirmed 2017

Australian Standard™

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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 2331.4.1—1981. 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 2819:1980, *Metallic coatings on metallic substrates—Electrodeposited and chemically deposited coatings—Review of methods available for testing adhesion.*

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.

METHOD

1 SCOPE

This Standard describes methods for checking the adhesion of electrodeposited and chemically deposited coatings. It is limited to tests of a qualitative nature. Table 1 indicates the suitability of each test for some of the common types of metallic coatings. Most of the tests described are capable of destroying both the coating and the article being tested, but some destroy the coating only. Even if the adhesion of the coating is found to be satisfactory on articles not destroyed in testing, it should not be assumed that the articles are undamaged. For example, the burnishing test (see Clause 3.1) may render an article unacceptable and the thermal shock test (see Clause 3.12) may produce unacceptable metallurgical changes.

This Standard does not describe tests that have been developed to give a quantitative measure of adhesion of metallic coating to a substrate, since such tests require special apparatus and considerable skill in their performance which renders them unsuitable as quality tests for production parts. Some of these quantitative tests may, however, be useful in research and development work.

NOTES:

1 When particular methods of adhesion testing are included in Standards for individual coatings, they should be used in preference to the methods described in this Standard and should be agreed upon beforehand by the supplier and the purchaser.

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.

3 Base metal variations of yield and hardness may cause misinterpretations in the test results.

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