AS 5056—2006
Reconfirmed 2017

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Australian Standard™

Metallic coatings—Powder metal (and composites) applied by mechanical means at ambient temperature

This Australian Standard was prepared by Committee MT-009, Metal Finishing. It was approved on behalf of the Council of Standards Australia on 10 March 2006. This Standard was published on 3 April 2006.

The following are represented on Committee MT-009:

Australian Institute of Metal Finishing
Australian Aluminium Council
Australian Industry Group
Australian Paint Manufacturers' Federation
Department of Defence
Galvanizers Association of Australia
Institute of Materials Engineering of Australasia
Powder Coaters Association
The Royal Australian Chemical Institute
Society of Automotive Engineers—Australasia

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 5056—2006

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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

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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. After consultation with stakeholders in both countries, Standard Australia and Standards New Zealand decided to develop this Standard as an Australian, rather than an Australian/New Zealand Standard.

The objective of the Standard is to specify the general technical delivery requirements for metal powder or composite coatings, mechanically applied to iron and steel components, such as self-drilling screws. Specifications for the preparation of samples and test pieces are also included.

During the preparation of this Standard, cognisance was taken of the following Standards:

AS	
1789	Electroplated zinc (electrogalvanized) coatings on ferrous articles (batch process)
3566	Self-drilling screws for the building and construction industries
3566.2	Part 2: Corrosion resistance requirements
AS/NZS	
2312	Guide to the protection of structural steel against atmospheric corrosion by the use of protective coatings
ASTM	
B695	Standard specification for coating of zinc mechanically deposited on iron and steel

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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1 SCOPE

This Standard specifies the requirements for powder metal coatings or composites coatings mechanically deposited on iron or steel substrates.

The coating service condition number (see Table 1) correlates to the corrosion category environments, which are specified in AS/NZS 2312 and ISO 9223.

Mechanical deposition greatly reduces the risk of hydrogen embrittlement, (though this Standard does specify hydrogen embrittlement treatments in Appendix C) and is suitable for coating bores and recesses in many parts that cannot be conveniently electroplated.

NOTES:

1 For means of demonstrating compliance to this Standard, see Appendix B.

2 Guidance on the maintenance of mechanically coated articles is shown in Appendix D.

3 This Standard does not purport to address all of the safety concerns, if any, associated with mechanical plating. It is the responsibility of the user of this Standard to establish appropriate safety and health practices and determine the applicability of regulation limitations.

This Standard does not specify requirements for the surface condition of the basis iron or steel before mechanical coating with powdered metal and composites. However, Appendix A requires that the mechanical plater be informed of surface condition requirements. This may be achieved by reference to AS 1627.0, which provides specifications for surface conditions on metals. Other requirements may be illustrated by provision of acceptable type samples.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1199	Sampling procedures for inspection by 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
1580	Paints and related materials—Methods of test
1580.408.2	Part 408.2: Adhesion coatings—Knife test
1580.408.5	Part 408.5: Adhesion—Pull-off test
1627	Metal finishing—Preparation and pretreatment of surfaces
1627.0	Part 0: Method selection guide
2331	Methods of test for metallic and related coatings
2331.1.1	Method 1.1: Local thickness test—Micrographic examination of cross-sections
2331.1.3	Method 1.3: Local thickness test—Magnetic method
2331.1.4	Method 1.4: Local thickness test—Magnetic induction and eddy current methods
2331.1.5	Method 1.5 Local thickness test—Beta-backscatter method
2331.1.6	Method 1.6: Local thickness test—Taper section method

