

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1580.213.1:1997

**Paints and related materials—Methods of test
Method 213.1: Relative dry hiding power**

RECONFIRMATION NOTICE

Technical Committee CH-003 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 30 May 2013.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 26 August 2013.

The following are represented on Technical Committee CH-003:

Australasian Corrosion Association
Australian Paint Approval Scheme
Australian Paint Manufacturers' Federation
Australian Pipeline Industry Association
Institution of Professional Engineers New Zealand
Master Painters New Zealand Association
Water Corporation Western Australia

NOTES

Australian/New Zealand Standard®

Paints and related materials—Methods of test

Method 213.1: Relative dry hiding power

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/3, Paints and Related Materials to supersede the 1993 edition of AS 1580.213.1. The revision is substantially the same as the previous Standard, but has been updated to remove references to obsolete Standards.

METHOD

1 SCOPE This Standard sets out a procedure for determining whether the relative dry hiding power of a given sample of paint applied at the specified spreading rate is less than, equal to, or greater than that of a mutually agreed-upon reference. An additional procedure is included which permits a quantitative determination of the relative dry hiding powers of two paints when they do not differ too greatly in this respect.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

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|------------|---|
| 1580 | Paints and related materials—Methods of test |
| 1580.101.5 | Method 101.5: Conditions of test, temperature and humidity controlled |
| 1580.102.1 | Method 102.1: Sampling procedure |

AS/NZS

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| 1580.103.1 | Method 103.1: Examination and preparation of samples for testing |
| 1580.202.1 | Method 202.1: Density |
| 1580.202.2 | Method 202.2: Density of water-dispersed paints subject to foaming |

3 PRINCIPLE A known volume of paint, the test film, is applied over a standard opacity display chart of contrasting black and white patterns. The volume of paint applied is determined by using a syringe applicator and using a series of tare weighings. The relative dry hiding power of the paint is then determined either qualitatively in comparison to a known reference paint or quantitatively by calculation.

4 DEFINITIONS For the purpose of this Standard, the definitions below apply.

4.1 Opacity display chart—a card of contrasting black and white patterns.

4.2 Reference paint—the paint to be used as a basis for comparison, mutually agreed upon by the parties to the test.

4.3 Relative dry hiding power—the ability of a paint to reduce the contrast of a black and white surface to which it is applied and allowed to dry. It is quantitatively expressed in terms of the proportional spreading rate of paint required to produce the same contrast reduction as that obtained with the paint chosen as standard.

4.4 Sample paint—the paint under test.

4.5 Spreading rate—the area in square metres covered by 1 L of paint.

5 APPARATUS

5.1 Balance—with a minimum capacity of 300 g and accurate and readable to 0.1 g.

5.2 Syringes—inert syringes of 10 mL and 20 mL capacity.

NOTE: Needles are not required for this test procedure.

5.3 Paint brush—a good quality bristle brush 40 mm to 60 mm wide.

5.4 Container—of approximately 250 mL capacity.

5.5 Brush-out board

6 MATERIAL The degreasing material shall be methylated spirit.

7 TEST PANELS The test panels shall be coated card (impervious to paint) with a suitable design to provide black and white areas of sufficient size to perform the test.

8 SAMPLE A representative sample of the paint shall be taken in accordance with AS 1580.102.1 and prepared in accordance with the procedures described in AS/NZS 1580.103.1.

9 TEST CONDITIONS

9.1 Temperature and humidity The test shall be carried out under the conditions specified in AS 1580.101.5.

9.2 Illumination The test shall be carried out under a reasonably high intensity of diffused light, e.g. 400 lx to 800 lx. There shall be no bright reflections from nearby objects.

10 QUALITATIVE PROCEDURE The procedure shall be as follows:

- (a) Determine the density of the sample paint in accordance with AS/NZS 1580.202.1 or AS/NZS 1580.202.2, as appropriate.
- (b) From the density of the paint first calculate the mass, in grams, and then the volume, in millilitres, of the paint required to coat the chart at the specified spreading rate (see Clause 12).
- (c) If necessary, to avoid cissing, particularly with water-borne paints, degrease the chart by swabbing with a cottonwool pad dampened with methylated spirit.
- (d) Place the chart on a flat surface, e.g. a large sheet of hardboard, flanked on one side by the balance and on the other side by the brush-out board.
- (e) Dip the brush into the well-stirred paint, brush it out over about 200 cm² of the brush-out board and try to lay off as would be done on the chart. Place the emptied, but wet, brush in the container on the balance and weigh.