

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1580.481.1.9:1998

Paints and related materials—Methods of test

Method 481.1.9: Coatings—Exposed to weathering—Degree of blistering

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.

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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™

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CH/3, Paints and Related Materials, to supersede AS 1580.481.1.9—1991, following a general review and rationalization of the AS 1580.481.1 series.

METHOD

1 SCOPE This Standard sets out a method for determining the degree of blistering in a paint film exposed to weathering conditions.

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

AS

1580 Paints and related materials—Methods of test

1580.481.0 Part 481.0: Coatings—Guide to assessing paint systems exposed to weathering conditions

AS/NZS

1580 Paints and related materials—Methods of test

1580.457.1 Method 457.1: Resistance to natural weathering

ISO

4628 Paints and varnishes—Evaluation of degradation of paint coatings—Designation of intensity, quantity and size of common types of defects

4628.2 Part 2: Designation of degree of blistering

3 DEFINITIONS For the purpose of this Standard, the definitions given in AS 1580.481.0 apply.

4 PRINCIPLE The unwashed test film is visually evaluated for the degree of blistering by comparison with diagrammatic reference standards showing rated stages of blistering.

NOTE: The diagrammatic reference standards have been adopted from ISO 4628.2.

5 APPARATUS

5.1 Microscope or magnifying glass—of 10× magnification, if required, for viewing the film surface.

5.2 Diagrammatic standards (see Figures 1 to 4)— for comparison with the test film.

6 VIEWING ENVIRONMENT Examination of the films should preferably be conducted indoors, out of direct sunlight, under lighting conditions of at least 500 lx.

7 PROCEDURE The procedure shall be as follows:

- (a) Place the dry test film and diagrammatic standards side by side in the same plane in the viewing environment.

NOTE: The unexposed portion of the panel may be used to aid assessment.

- (b) Within 2 h of removal from the test environment, visually examine the test film. If blistering is present, compare the surface finish with the reference standards (Clause 5.2) that show a similar amount of blistering. In the absence of visible blistering, re-examine the panel with the 10× magnifying equipment (Clause 5.1), noting the presence of microscopic blistering.

NOTE: The severity of blistering may be affected by the time between removal from the test environment and the assessment, the prevailing climatic conditions and the handling of the panels..

- (c) If blistering is present, determine whether it is of irregular pattern or uniform pattern. If the blistering is non-uniform determine whether the blistering is in small clusters or large patches.
- (d) Using Table 1, determine the rating from Column 1 for the density of blistering, and Table 2 for the size of blistering, both as indicated in Figure 1, Figure 2, Figure 3 or Figure 4.
- (e) Record the rating.

NOTE: The use of intermediate half steps is permissible, if required, to give a more detailed report on the defects or changes observed.

- (f) If appropriate, return test panel to test rack for further exposure testing.

TABLE 1
RATING OF TEST PANEL FOR DENSITY OF
BLISTERING

Rating scale*	Density of blistering
0	None
1	Less than few
2	Few
3	Medium
4	Medium-dense
5	Dense

* The rating scale conforms with current ISO practice.