

Australian/New Zealand Standard®

Paints and related materials—Methods of test

Method 483.2: Resistance to artificial weathering—Fluorescent UV-condensation type instruments

PREFACE

This Standard was prepared by the Joint Australia/New Zealand Standards Committee CH/3 on Paints and Related Materials under the direction of the Multitechnics Standards Policy Board.

FOREWORD

The test procedure of the 1991 edition of ASTM G53 has been adopted in this Standard as it is a method that is widely used in paint and related industries. While the method is intended to simulate the deterioration caused by sunlight, and water as rain or dew, attempts to directly relate the results obtained by the method to natural weathering should be treated with caution. The method is used effectively in product development, where performance properties resulting from changes in formulation of materials need to be evaluated.

METHOD

1 SCOPE This Standard endorses a method for assessing the deterioration caused by sunlight, and water as rain or dew, using a fluorescent ultraviolet (UV) and condensation apparatus.

2 REFERENCED DOCUMENT The following document is referred to in this Standard:

ASTM

G53 Standard practice for operating light and water-exposure apparatus (fluorescent UV-condensation type) for exposure of non-metallic materials

3 PRINCIPLE Specimens are alternatively exposed to UV light alone, and to condensation alone, in a repetitive cycle using the procedures and equipment specified in ASTM G53.

4 APPARATUS The apparatus detailed in ASTM G53 is required.

5 PROCEDURE The procedure shall be as detailed in ASTM G53.

6 REPORT The report shall contain the following information:

- (a) Name of testing authority.
- (b) Report number.
- (c) Identification of material under test.
- (d) Whether exposure was performed on panels which were previously prepared, or were prepared by the testing authority.
- (e) History of panels prior to exposure, e.g. drying period, drying conditions, film thickness and number of coats.
- (f) Manufacturer and model of fluorescent UV-condensation apparatus.
- (g) Manufacturer's designation for the fluorescent UV lamp, the wavelength (nm) at which peak emission occurs, and the short wavelength at which 1 percent of peak emission occurs (for example, FS-40 313/280 nm).
- (h) Cycle of UV exposure time and temperature, condensation time and temperature (for example 4 h UV/60°C, 4 h CON/50°C).
- (i) Total exposure time.
- (j) Special conditions of test, such as rotation of test specimens.
- (k) Reference to this Standard, i.e. AS/NZS 1580.483.2.