STANDARDS AUSTRALIA

RECONFIRMATION

OF
AS 3558.5—1999
Methods of testing plastics and composite materials sanitary plumbing fixtures
Method 5: Determination of degradation by ultraviolet light

RECONFIRMATION NOTICE

Technical Committee WS-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 September 2016.

The following are represented on Technical Committee WS-003:

Association of Accredited Certification Bodies
Australian Chamber of Commerce and Industry
CSIRO
Department of Agriculture and Water Resources (Australian Government)
Plastics New Zealand
Plumbing Distributors Association of New Zealand
Plumbing Products Industry Group
Testing Interests (Australia)

NOTES

AS 3558.5—1999
Reconfirmed 2016

Australian Standard™

Methods of testing plastics and composite materials sanitary plumbing fixtures

Method 5: Determination of degradation by ultraviolet light

1 SCOPE

This Standard sets out a method for determining the resistance to degradation by ultraviolet light of plastics material used in sanitary plumbing fixtures.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS
3558 Methods of testing plastics and composite materials sanitary plumbing fixtures
3558.19 Method 19: Determination of impact resistance of films

3 PRINCIPLE

Two ultraviolet sunlamps with lampshades are mounted by suitable means over a reinforced fibre cement sheet which provides support for the specimens under test. Test specimens are placed on the sheet under lamps for a specified time and the temperature is controlled by the use of a fan and a temperature gauge for monitoring readings. Specimens are then subjected to visual inspection and compared with each other.

NOTE: The exposure duration does not relate to any specific duration of outdoor weathering.

4 APPARATUS

The following apparatus is required:

(a) Two sunlamps and lampstands. Each sunlamp shall have a mercury vapour discharge with tungsten filament resistive ballast, and an outer glass bulb that effectively absorbs radiation of wavelength less than 280 nm. The electrical power consumption of each lamp shall be within the range 250 W to 350 W. Lamps shall be discarded after 1680 h (70 days) of operation.

NOTES:

1 Lamps are to have a nominal power consumption of 300 W, and within the wavelength range of 280 nm to 400 nm, and have an integrated irradiance of 5.5 W/m^2 to 8.5 W/m^2.

2 Ultraviolet radiation may cause conjunctivitis. The lamps should not be viewed directly without protecting the eyes with suitable dark glasses. Screens may be placed about the test assembly during the exposure, but should not restrict air flow nor cause test specimens to overheat.

(b) Two cylindrical lampshades, 300 ±10 mm diameter, constructed of aluminium foil, and held by the lampstand which can be mounted 300 mm above the target area (see Figure 1).