STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1462.28:2003

Methods of test for plastics pipes and fittings

Method 28: Method for the assessment of the degree of pigment or carbon black dispersion in polyolefin pipes, fittings and compounds

RECONFIRMATION NOTICE

Technical Committee PL-006 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 27 April 2017.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 10 August 2017.

The following are represented on Technical Committee PL-006:

Association of Accredited Certification Bodies
Australian Building Codes Board
Energy Networks Australia
Engineers Australia
New Zealand Employers and Manufacturers Association (Central)
Plastics Industry Pipe Association of Australia
Plastics New Zealand
Plumbing Products Industry Group
Water New Zealand
Water Services Association of Australia

NOTES

Australian/New Zealand Standard™

Methods of test for plastics pipes and fittings

Method 28: Method for the assessment of the degree of pigment or carbon black dispersion in polyolefin pipes, fittings and compounds

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-045, Plastics Pipe Systems Test and Calculation Methods.

This Standard is identical to and has been reproduced from ISO 18553, *Method for the assessment of the degree of pigment or carbon black dispersion in polyolefin pipes, fittings and compound.*

Under arrangements made between Standards Australia and the international Standards bodies, ISO and IEC, as well as certain other Standards organizations, users of this Australian Standard are advised of the following:

(a) Copyright is vested Standards Australia.

(b) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(c) In the source text 'this International Standard' should read 'this Australian Standard'.

(d) A full point substitutes for a comma when referring to a decimal marker.

Standards Australia
STANDARDS NEW ZEALAND
Paerewa Aotearoa

NOTES

METHOD

1 Scope

This International Standard describes a method with two procedures for the assessment of pigment or carbon black particle and agglomerate size and degree of dispersion in polyolefin pipes, fittings and compounds.

The method is applicable to polyolefin pipes and fittings, as well as raw material in pellet form, with the choice of procedure to be determined by the referring specification.

The method is applicable to carbon black pigmented polyolefin pipes, fittings and compounds with a carbon black content of less than 3 %.

2 Principle

Small samples of raw-material pellet or material removed from the pipe or fitting are heated and compressed between microscope slides. Alternatively, a microtome slice can be taken.

The specimens produced are examined microscopically and the sizes of particles and agglomerates are measured, recorded and graded by comparison with a tabulated grading system (see Table A.1).

A particle/agglomerate size grading is determined from an average of the gradings determined for six specimens. If required, a rating of the appearance of the dispersion is determined by comparison with photomicrographs (see annex B).

3 Apparatus

3.1 General

3.1.1 **Microscope**, capable of producing suitable magnification, see 4.2 and 5.2, with orthogonal travel, a standard calibrated graticule capable of measuring the particle and agglomerate size, and lighting adequate to avoid optical effects.

3.1.2 **Glass microscope slides**: 1 mm thickness is suitable, with a thin cover slip.

3.2 For the compression procedure (see 4.1.1)

3.2.1 **Oven or hotplate or other type of heating device**, capable of operating at a controlled temperature between 150 °C and 210 °C.

3.2.2 **Scalpel**, for cutting out specimens.

3.2.3 **Press**, **weights** or **spring clips**, to maintain pressure.