

Australian Standard™

AS 2888.2

Methods of testing plastics waste fittings

Method 2: Method for determining dimensions

PREFACE

This Standard was prepared by the Standards Australia Committee PL-045, Plastics Pipe Systems Test and Calculation, to supersede AS 2888.2—1986. The principal change in this revision is that the method for determination of wall thickness has been deleted since no reference has been made to it in AS 2887, *Plastics waste fittings*.

METHOD

1 SCOPE

This Standard sets out methods for determining the dimensions of plastics waste fittings.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard—

AS

1722 Pipe threads of Whitworth form

1722.1 Part 1: Sealing pipe threads

1722.2 Part 2: Fastening pipe threads

1984 Vernier callipers (metric series)

2101 Internal micrometers (including stick micrometers) (metric series)

2102 Micrometer callipers for external measurement

3 CONDITIONING AND TESTING

For referee tests, the test specimen shall be conditioned in air at a temperature of $20 \pm 2^\circ\text{C}$ for a minimum of 24 h prior to being tested in the same controlled environment. For routine tests, the test specimen may be tested at ambient temperature, but not exceeding 38°C .

4 GENERAL DIMENSIONS

4.1 Apparatus

The following apparatus is required as appropriate for the measurement—:

- (a) External micrometer complying with AS 2102.
- (b) An internal micrometer or telescope gauge with a fixed spherical anvil of 3 mm nominal radius complying with AS 2101.
- (c) Vernier calliper complying with AS 1984.

- (d) Vernier depth gauge, to measure depths or lengths from machined surfaces.
- (e) Callipers (inside and outside). Callipers may be used where measurements are required at locations inaccessible by other means.

NOTES:

- 1 Alternative means may be used to establish dimensions provided such methods are of equal or greater accuracy.
- 2 GO/NO-GO gauges are acceptable for quality control purposes provided they are of equal accuracy and are not affected by ovality problems.

4.2 Tolerances

Where the dimension stipulated in this Standard is to zero decimal place, it shall be measured with a device capable of accuracy to one decimal place. Values shall be rounded off to the nearest whole number with values ending in 0.5 mm being rounded upwards.

Where the dimension stipulated in this Standard is to one decimal place, it shall be measured with a device capable to two decimal place accuracy. Values shall be rounded off to the nearest 0.1 mm with values ending in 0.05 being rounded upwards.

4.3 Procedure

Dimensioning procedures should be carried out in accordance with sound metrological practice.

All dimensions shall be measured and recorded, maximum and minimum measurements being recorded where applicable.

4.4 Report

The report shall include the following:

- (a) Measurements appropriate to the part being measured.
- (b) Reference to this Australian Standard, i.e. AS 2888.2.

5 DETERMINATION OF WATERWAY AND BORE

5.1 Apparatus

The following apparatus is required:

- (a) Internal micrometer or telescopic gauge accurate to within ± 0.02 mm with a fixed spherical anvil of 3 mm nominal radius.

NOTE: Alternative means may be used provided they are of equal or greater accuracy.

- (b) Callipers (see Note to Clause 5.2(b)).

5.2 Procedure

The procedure shall be as follows:

- (a) Using internal micrometer or telescopic gauge take a series of measurements of the inside diameter of the fitting at various sections within the fitting and determine minimum and maximum inside diameter at each section. Record values.
- (b) Calculate and record minimum and maximum mean inside diameter. Values shall be rounded off to the nearest 0.1 mm with values ending in 0.05 being rounded up.

NOTE: For small waterways, callipers may be placed across the inside of the socket with measurement of the diameter being made upon withdrawal.