



## **Polybutylene (PB) plumbing pipe systems—Metric series**

### **Part 2: Mechanical and fusion jointing systems**



This Australian Standard® was prepared by Committee PL-006, Polyolefin Pipe Systems. It was approved on behalf of the Council of Standards Australia on 27 November 2006. This Standard was published on 21 February 2007.

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The following are represented on Committee PL-006:

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  - Certification Interests (Australia)
  - Energy Networks Association
  - Engineers Australia
  - Master Plumbers, Gasfitters and Drainlayers New Zealand
  - New Zealand Water & Waste Association
  - Plastics Industry Pipe Association of Australia
  - Plastics New Zealand
  - Water Services Association of Australia
- 

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard<sup>®</sup>

**Polybutylene (PB) plumbing pipe  
systems—Metric series**

**Part 2: Mechanical and fusion jointing  
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## PREFACE

This Standard was prepared by the Joint Australia/New Zealand Standards Committee PL-006 Polyolefin Pipe Systems at the request of pipe and fittings importers. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this series of Standards as Australian Standards rather than Australian/New Zealand Standards.

*This Standard incorporates Amendment No. 1 (November 2018). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.*

The AS 5082 series consists of the following:

AS

5082 Polybutylene (PB) plumbing pipe systems—Metric series

5082.1 Part 1: Metric polybutylene (PB) pipes for hot and cold water applications

5082.1 Part 2: Mechanical and fusion jointing systems

NOTE: For polybutylene extrusion compounds refer to Australian/New Zealand Standard AS/NZS 2642.1, *Polybutylene (PB) plumbing pipe systems—Polybutylene (PB) extrusion compounds*.

This series of Standards differs from the relevant parts of the AS/NZS 2642 series for PB pipe systems as follows:

- (a) The outside diameters of the pipes follow the metric dimensions, in accordance with ISO 161-1, *Thermoplastics pipes for the conveyance of fluids—Nominal outside diameters and nominal pressures*, Part 1: *Metric series*, as distinct from the diameters in the AS/NZS 2642 series which follow copper pipe compatible diameters.
- (b) The size range of pipes within the AS 5082 series is greater, and a number of test requirements have been based on the ISO 15876 series, *Plastics piping systems for hot and cold water installation—Polybutylene (PB)*.
- (c) The jointing system allows for fusion jointing.

It is not intended that this series of Standards will replace the AS/NZS 2642 series, which will be limited to plumbing sizes and pressure classes. To differentiate between both metric and imperial based systems, in particular given the closeness of the outside diameter tolerances for the 18 mm (nominal diameter) AS/NZS 2642 pipe and the 16 mm metric outside diameter pipe, both Standards will run concurrently to allow both systems to be marked or labelled differently.

Care should be taken to avoid mismatching of AS/NZS 2642 pipes or fittings with products complying with this series of Standards.

Statements expressed in normative terms in notes to tables are deemed to be requirements of this Standard.

The term ‘normative’ has been used in this Standard to define the application of the appendix to which it applies. A ‘normative’ appendix is an integral part of a Standard.

## CONTENTS

	<i>Page</i>
1 SCOPE .....	4
2 APPLICATION.....	4
3 REFERENCED DOCUMENTS .....	4
4 DEFINITIONS .....	5
5 CLASSIFICATION.....	6
6 PRESSURE RATING ACCORDING TO PIPE MATERIAL TEMPERATURE .....	6
7 SIZE AND TYPE.....	6
8 MATERIAL CHARACTERISTICS.....	6
9 TOXICITY AND EFFECT ON WATER .....	7
10 FREEDOM FROM DEFECTS.....	7
11 FASTENING .....	8
12 PERFORMANCE REQUIREMENTS .....	8
13 FITTING DIMENSIONS .....	10
14 MARKING .....	14
APPENDICES	
A MEANS FOR DEMONSTRATING CONFORMITY WITH THIS STANDARD .....	15
B ORDER OF SPECIFYING SIZES AND TYPES OF FITTINGS .....	18
C METHOD FOR DETERMINING COMPATIBILITY OF FITTINGS WITH PIPE ..	19
D METHOD FOR DETERMINING RESISTANCE TO LEAKAGE WHEN SUBJECTED TO BENDING .....	23
E METHOD FOR DETERMINING RESISTANCE TO PULL-OUT OF ASSEMBLED JOINTS.....	26
F THERMAL CYCLING TEST.....	29
G METHOD FOR DETERMINING LIQUID INFILTRATION .....	31
H SHORT-TERM PRESSURE TEST.....	33

## STANDARDS AUSTRALIA

## Australian Standard

## Polybutylene (PB) plumbing pipe systems—Metric series

## Part 2: Mechanical and fusion jointing systems

**1 SCOPE**

This Standard specifies requirements for mechanical and fusion jointing fittings suitable for use as fixed joints with polybutylene pipes manufactured in accordance with AS 5082.1 .

This standard is applicable to fittings of the following types:

- (a) Socket weld fittings.
- (b) Electrofusion fittings.
- (c) Mechanical fittings.
- (d) Fittings with incorporated inserts.

**2 APPLICATION**

Means for demonstrating compliance with this Standard shall be in accordance with Appendix A.

**3 REFERENCED DOCUMENTS**

The following documents are referred to in this Standard:

## AS

- |        |   |
|--------|---|
| 1199   | Sampling procedures for inspection attributes   |
| 1199.1 | Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection        |
| 1349   | Bourdon tube pressure and vacuum gauges   |
| 1722   | Pipe threads of Whitworth form  |
| 1722.1 | Part 1: Sealing pipe threads  |
| 1722.2 | Part 2: Fastening pipe threads  |
| 2345   | Dezincification resistance of copper alloys   |
| 3688   | Water supply—Copper and copper alloy compression and capillary fittings and threaded end connectors |
| 5082   | Polybutylene (PB) plumbing pipe systems—Metric series   |
| 5082.1 | Part 1: Metric polybutylene (PB) pipes for hot and cold water applications                          |

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## AS ISO/IEC

- |       |   |
|-------|---|
| 17025 | General requirements for the competence of testing and calibration laboratories |
|-------|---|

## AS/NZS

- |         |   |
|---------|---|
| 1462    | Methods of test for plastics pipes and fittings                       |
| 1462.1  | Method 1: Method for determining the dimensions of pipes and fittings |
| 1462.14 | Method 14: Method for determination of the light transmission of pipe |