

AS 2698.3—1990

Reconfirmed 2017

Australian Standard<sup>®</sup>

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**Plastics pipes and fittings for  
irrigation and rural applications**

**Part 3: Mechanical joint fittings  
for use with polyethylene micro-  
irrigation pipes**

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This Australian Standard was prepared by Committee PL/18, Polyethylene Irrigation Systems. It was approved on behalf of the Council of Standards Australia on 27 October 1989 and published on 12 March 1990.

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Department of Agriculture, N.S.W.  
Department of Agriculture, S.A.  
Engineering and Water Supply Department, S.A.  
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RECONFIRMATION

OF

AS 2698.3—1990

**Plastics pipes and fittings for irrigation and rural applications**  
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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.

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## PREFACE

This Standard was prepared by Standards Australia Committee for Polyethylene Irrigation Systems under the direction of the Plastics Standards Board. It is based on a draft prepared by the Plastics Institute of Australia Inc.

The pressure loss performance requirements for fittings will receive consideration in a future revision of this Standard.

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## STANDARDS AUSTRALIA

## Australian Standard

## Plastics pipes and fittings for irrigation and rural applications

## Part 3: Mechanical joint fittings for use with polyethylene micro-irrigation pipes

**1 SCOPE.** This Standard specifies requirements for mechanical jointing fittings suitable for use as fixed joints with polyethylene pipes manufactured in accordance with AS 2698, Part 1. Fittings manufactured in accordance with this Standard are intended for the conveyance of water for use in micro-irrigation applications, below and above ground.

## NOTES:

1. Fittings may be suitable for use with fluids other than water. Advice should be sought from the manufacturer.
2. Advisory information on alternative methods for determining compliance of a 'lot' with this Standard is given in Appendix A.
3. No maximum extension of the bore of the pipe by a barbed fitting has been specified; the success of the assembled joint is determined by its performance when tested in accordance with Clause 10.2.

**2 REFERENCED DOCUMENTS.** The following documents are referred to in this Standard:

AS	
1199	Sampling procedures and tables for inspection by attributes
1349	Bourdon tube pressure and vacuum gauges
1399	Guide to AS 1199 — Sampling procedures and tables for inspection by attributes
1460	Mechanical jointing fittings for use with polyethylene pressure pipes
1477	Unplasticized PVC (UPVC) pipes and fittings for pressure applications
1585	Capillary and brazing fittings of copper and copper alloy
1590	Copper alloy threaded pipe fittings for use with tubes threaded with pipe threads of Whitworth form
1645	Copper and copper alloy compression fittings for use in water supply and hot water services
1821-23	Supplier quality systems
2000	Guide to AS 1821-23 — Supplier quality systems
2345	An accelerated laboratory test method for assessment of the susceptibility of brass to dezincification
2417	Pumps — The international acceptance test codes
2417.2	Part 2: ISO 2548 — Class C tests
2490	Sampling procedures and charts for inspection by variables for percent defective
2698	Plastics pipes and fittings for irrigation and rural applications
2698.1	Part 1: Polyethylene micro-irrigation pipe

3900	Quality systems — Guide to selection and use
3901	Quality systems for design/development, production, installation and servicing
3902	Quality systems for production and installation
3903	Quality systems for final inspection and test
3904	Quality systems — Guide to quality management and quality standards elements
BS	
1042	Measurement of fluid flow in closed conduits Part 1: Section 1.1 — Orifice plates, nozzles and venturi tubes inserted in circular cross section conduits running full

**3 DEFINITIONS.** For the purpose of this Standard, the definitions below apply:

**3.1 Working pressure** — the maximum pressure that can be sustained by the type and class of pipe or fitting over its estimated useful life under the anticipated working conditions.

**3.2 Test pressure** — the pressure applied internally to pipes and fittings when they are being tested for strength and watertightness.

**3.3 Type test** — a test intended to prove the suitability and performance of a new composition, a new compounding or processing technique, or a new design or size of pipe, joint or fitting.

**4 EFFECT OF TEMPERATURE ON WORKING PRESSURE.** The reduction of working pressure with increasing temperatures above 20°C shall be not less for the fitting and joint than that specified for polyethylene pipe in AS 2698, Part 1.

### 5 CLASSIFICATION.

**5.1 Internal grip fittings** (insert-type fittings) — fittings which grip the pipe only at its inner surface.

**5.2 External grip fittings** (compression-type fittings) — fittings which grip the pipe only at its outer surface.

**5.3 Internal-external grip fittings** — fittings which grip the pipe both at the inner surface and the outer surface of the pipe.

**6 SIZE AND TYPE.** The method of specifying the size and type of fittings shall be in accordance with Appendix B.

Fittings shall be manufactured so that connection ends do not deviate from the design geometry by more than 2°. (See Figure 1.)