

Australian Standard[®]

Plumbing and drainage products

**Part 458: Universal plastic-bodied
transition couplings**



This Australian Standard® was prepared by Committee WS-001, Water Fittings. It was approved on behalf of the Council of Standards Australia on 30 September 2008. This Standard was published on 23 December 2008.

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- AUSTAP
 - Australian Industry Group
 - Australian Stainless Steel Development Association
 - Building Officials Institute of New Zealand
 - Certification Interests (Australia)
 - Copper Development Centre—Australia
 - Master Plumbers Association of NSW
 - Master Plumbers, Gasfitters and Drainlayers New Zealand
 - New Zealand Association of Plumbing Distributors
 - Plastics Industry Pipe Association of Australia
 - Plastics New Zealand
 - Queensland Brassware Industry Advisory Panel
 - South Australian Water Corporation
 - Testing Interests (Australia)
 - Water Corporation Western 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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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee WS-001, *Water Fittings*, to supersede ATS 5200.458—2004, *Technical Specification for plumbing and drainage products Part 458: Universal transition fittings*.

The objective of this Standard is to provide general requirements for couplings to be used for connecting pipes of diverse materials. The basic principle is that the piping systems attached by the universal plastic-bodied transition couplings are stronger than the equivalent PE pipe system strength.

The test protocol and information in this Standard was arranged by committee members to meet the authorization requirements given in the Plumbing Code of Australia.

The word 'VOID' set against a clause indicates that the clause is not used in this Standard. The inclusion of this word allows for the use of a common clause numbering system for the plumbing and drainage Standards.

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STANDARDS AUSTRALIA

Australian Standard
Plumbing and drainage products**Part 458: Universal plastic-bodied transition couplings****1 SCOPE**

This Standard sets out requirements for plastic-bodied transition couplings intended to join PE, PB, PEX, PP, PVC, ABS, copper, ductile iron, cast iron, lead, stainless steel and galvanized steel pipes for cold water applications (with a maximum operating pressure of 1250 kPa at 20°C) to each other and to themselves (i.e., PE to copper), for pipe/tube sizes up to 110 mm outside diameter.

2 APPLICATION

Appendix A sets out the means by which compliance with this Standard shall be demonstrated by a manufacturer for the purpose of product certification.

3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 2345 Dezincification resistance of copper alloys
- 3688 Water supply—Metallic fittings and end connectors

AS/NZS

- 3500 Plumbing and drainage
- 3500.0 Part 0: Glossary of terms
- 3707 Method for testing pressure cycling resistance of pipes and fittings
- 4020 Testing of products for use in contact with drinking water
- 4130 Polyethylene (PE) pipes for pressure applications
- 4158 Thermal-bonded polymeric coatings on valves and fittings for water industry purposes

AS ISO

- 7 Pipe threads where pressure-tight joints are made on the threads
- 7.1 Part 1: Dimensions, tolerances and designation

ISO

- 1167 Thermoplastics pipes, fittings and assemblies for the conveyance of fluids—Determination of the resistance to internal pressure
- 1167.1 Part 1: General method
- 3459 Polyethylene (PE) pressure pipes—Joints assembled with mechanical fittings—Internal under-pressure test method and requirement
- 3501 Assembled joints between fittings and polyethylene (PE) pressure pipes—Test of resistance to pull out
- 3503 Assembled joints between fittings and polyethylene (PE) pressure pipes—Test of leakproofness under internal pressure when subjected to bending