

Under Revision see DR9496
Superseded by AS/NZS 1477:1996

Australian Standard®

Unplasticized PVC (UPVC) pipes and fittings for pressure applications

Part 2: Moulded fittings

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STANDARDS AUSTRALIA



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The following interests are represented on Committee PL/21:

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Engineering and Water Supply Department, S.A.
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Australian Standard®

Unplasticized PVC (UPVC) pipes and fittings for pressure applications

Part 2: Moulded fittings

✓ First published as AS 1477.2—1973.
Second edition 1990.

PREFACE

This Standard was prepared by the Standard Australia Committee on Unplasticized PVC Pipe, under the direction of the Plastics Standards Board to supersede AS 1477.2—1973, *Moulded UPVC fittings for pressure applications, Part 2—Moulded fittings for pressure applications*.

An attempt has been made to quantify previously imprecise requirements. The opacity test for light transmission, and the flattening and sulfuric acid immersion tests, previously required, have been deleted in this edition.

The specification for vinyl chloride monomer content has a revised maximum permissible level of 1 mg/kg.

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Australian Standard

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Part 2—Moulded fittings

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This Standard specifies requirements for moulded unplasticized PVC (UPVC) fittings for pressure applications for use with UPVC pipes complying with AS 1477.1.

NOTES:

1. Advisory information on methods of determining compliance of a 'lot' with this Standard is given in Appendix A.
2. Tests specified in Clauses 2.2, 2.3, 3.1, 3.2, 3.3, 3.4 and 3.5 are type tests performed to assess compliance of finished product with this Standard.
3. Appendix B illustrates typical pressure fittings for the purpose of standardizing terminology. It does not attempt to cover the complete range and details of acceptable fittings.

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

- AS
- 1145 Determination of tensile properties of plastics materials
- 1199 Sampling procedures and tables for inspection by attributes
- 1399 Guide to AS 1199, Sampling procedures and tables for inspection by attributes
- 1462 Methods of test for unplasticized PVC (UPVC) pipes and fittings
- 1462.1 Method 1: Method for determining the dimensions of UPVC pipes and fittings
- 1462.5 Method 5: Method for determining the softening point of UPVC pipes and fittings
- 1462.6 Method 6: Method for hydrostatic pressure testing of UPVC pressure pipes
- 1462.7 Method 7: Method for determining extractability of lead and tin from UPVC pipes and fittings
- 1462.9 Method 9: Method for hydrostatic pressure testing of UPVC pressure fittings
- 1462.11 Method 11: Method for high temperature stress relief testing of UPVC fittings
- 1462.15 Method 15: Method for determination of vinyl chloride monomer content
- 1477 Unplasticized PVC (UPVC) pipes and fittings for pressure applications
- 1477.1 Part 1: Pipes
- 1477.6 Part 6: Rubber ring joints
- 1722 Pipe threads of Whitworth form
- 1722.1 Part 1: Sealing pipe threads
- 1722.2 Part 2: Fastening pipe threads
- 1821-23 Suppliers Quality Systems
- 2000 Guide to AS 1821-23—Suppliers quality systems

- 2032 Code of practice for installation of UPVC pipe systems
- 2490 Sampling procedures and tables for inspection by variables for percent defective
- 2888 Methods of test for plastics waste fittings
- 2888.1 Part 1: Method for determining the suitability of connection threads of B.S.P. form of plastics waste fittings
- 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 system elements

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

- 1.3.1 Fitting material temperature**—the average temperature estimated as applying through the full wall thickness.
- 1.3.2 Moulded fitting**—a fitting manufactured entirely by injection moulding.
- 1.3.3 Quality control test**—test carried out during or after manufacture to prove the quality of a production run of pipe or fittings.
- 1.3.4 Test pressure**—The pressure applied internally to pipes or fittings when tested for strength and watertightness.
- 1.3.5 Type test**—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.
- 1.3.6 Working pressure**—the maximum pressure that can be sustained by the type and class of pipe or fitting for its estimated useful life under the expected working conditions.

1.4 NOTATION. The following notation applies in this Standard:

- D_e = nominal pipe size, in millimetres.
- D_m = pipe mean outside diameter, in millimetres.
- D_r = socket root mean diameter, in millimetres.
- L = socket length, in millimetres.
- T = socket wall thickness, in millimetres.