Australian Standard®

Unplasticized PVC (UPVC) pipes and fittings for pressure applications

Part 2: Moulded fittings

D

This Australian Standard was prepared by Committee PL/21, Unplasticized PVC Pipes. It was approved on behalf of the Council of Standards Australia on 23 November 1989 and published on 2 April 1990.

The following interests are represented on Committee PL/21:

CSIRO, Division of Building, Construction and Engineering

Engineering and Water Supply Department, S.A.

Hunter District Water Board

Melbourne and Metropolitan Boards of Works

Public Works Department, N.S.W.

Rural Water Commission, Vic.

The Plastics Institute of Australia

Water Authority of Western Australia

Water Board, Sydney

Water Resources Commission, Qld

This Standard was issued in draft form for comment as DR 87045.

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.

PUBLISHED BY STANDARDS AUSTRALIA
(STANDARDS ASSOCIATION OF AUSTRALIA)
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY NSW
ISBN 0 7262 6086 X

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.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard
Unplasticized PVC (UPVC) pipes and fittings for pressure applications

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 charts 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.