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**Unplasticized PVC (UPVC) pipes and fittings for pressure applications**

**Part 6: Rubber ring joints**

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CSIRO, Division of Building, Construction and Engineering  
Engineering and Water Supply Department, S.A.  
Hunter District Water Board  
Melbourne & Metropolitan Board of Works  
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First published as AS 1477.6—1973  
Second edition—1989.

## PREFACE

This Standard was prepared by the Standards Australia Committee on Unplasticized PVC Pipe, under the direction of the Plastics Standards Board to supersede AS 1477.6—1973.

In this edition AS 1462.17, *Methods of test for unplasticized PVC (UPVC), pipes and fittings, Method 17: Method for testing pressure pipe joints with elastomeric seals*, is referred to for more detailed procedures for short and long-term hydrostatic testing. The liquid infiltration test has been deleted from this edition.

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## STANDARDS AUSTRALIA

## Australian Standard

## Unplasticized PVC (UPVC) pipes and fittings for pressure applications

## Part 6: Rubber ring joints

**1 SCOPE.** This Standard specifies requirements for rubber ring joints for unplasticized PVC (UPVC) pipes and fittings complying, as applicable, with AS 1477.1, AS 1477.2 and AS 1477.3, in pressure applications.

NOTE: Advisory information on alternative methods of determining compliance of a lot with this Standard is given in Appendix A.

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

AS	
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
1462.17	Method 17: Method for testing pressure pipe joints with elastomeric seals
1477	Unplasticized PVC (UPVC) pipes and fittings for pressure applications
1477.1	Part 1: UPVC pipes for pressure applications
1477.2	Part 2: Moulded UPVC fittings for pressure applications
1477.3	Part 3: Fabricated UPVC fittings for pressure applications
1646	Rubber joint rings for water supply, sewerage and drainage purposes
1821–23	Suppliers quality systems
2000	Guide to AS 1821–23, Suppliers quality systems
2032	Code of practice for installation of UPVC pipe system
2490	Sampling procedures for charts and inspection by variables for percent defective
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

**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 for its estimated useful life under the expected working conditions.

**3.2 Pipe material temperature**—the average temperature estimated as applying through the full wall thickness.

**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 REQUIREMENTS FOR RUBBER JOINTING RINGS.** The rubber jointing rings shall comply with AS 1646.

NOTE: It is recommended that rubber jointing rings be obtained only from pipe or fittings manufacturers, as the probability of failure is increased when pipes/fittings and rings are obtained from separate, unrelated sources.

**5 REQUIREMENTS FOR JOINT DESIGN.**

NOTE: The joint design requirements are confined to the socket and the jointing ring, so that the performance requirements laid down in this Standard may be met by using parallel spigots within the dimensions for pipes specified in AS 1477.1.

When determined in accordance with AS 1462.1, the minimum wall thickness of sockets for rubber ring jointing, on the pressure side of the joint, shall be not less than the minimum pipe wall thickness specified in AS 1477.1. The minimum socket depth,  $A_{min}$ , shall be in accordance with Table 1 and Figure 1.

TABLE 1  
DEPTH OF UPVC SOCKETS FOR RUBBER RING JOINTING

Nominal size ( $D_c$ )	Minimum socket depth ( $A_{min}$ )
≤ 50	38
65	41
80	43
100	47
125	51
150	54
175	60
200	64
225	67
250	72
300	77
350	83
375	90
400	97
450	105
500	114
575	124