

Australian/New Zealand Standard™

**PVC-U pipes and fittings for drain, waste  
and vent applications**



## **AS/NZS 1260:2017**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee PL-021, PVC, ABS and Polyamide Pipe Systems. It was approved on behalf of the Council of Standards Australia on 22 March 2017 and by the New Zealand Standards Approval Board on 5 April 2017. This Standard was published on 9 May 2017.

---

The following are represented on Committee PL-021:

Association of Accredited Certification Bodies  
Australian Chamber of Commerce and Industry  
Chemistry Australia  
Energy Networks Association  
Engineers Australia  
Local Government New Zealand  
New Zealand Employers and Manufacturers Association (Central)  
Plastics Industry Pipe Association of Australia  
Plastics New Zealand  
Water New Zealand  
Water Services Association of Australia

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at [www.saiglobal.com](http://www.saiglobal.com) or Standards New Zealand web site at [www.standards.govt.nz](http://www.standards.govt.nz) and looking up the relevant Standard in the on-line catalogue.

For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of Standards Australia or the New Zealand Standards Executive at the address shown on the back cover.

---

*This Standard was issued in draft form for comment as DR AS/NZS 1260:2016.*

---

## Australian/New Zealand Standard™

# PVC-U pipes and fittings for drain, waste and vent applications

Originated in Australia as part of AS K138—1963 and AS A160—1969.  
Originated in New Zealand in part as NZS 7641:1978, NZS 7642:1971 and NZS 7649:1988.  
Previous edition AS/NZS 1260:2009.  
Fifth edition 2017.

### **COPYRIGHT**

© Standards Australia Limited

© The Crown in right of New Zealand, administered by the New Zealand Standards Executive

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher, unless otherwise permitted under the Copyright Act 1968 (Australia) or the Copyright Act 1994 (New Zealand).

Jointly published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001 and by Standards New Zealand, PO Box 1473, Wellington 6140.

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-021, PVC, ABS and Polyamide Pipe Systems, to supersede AS/NZS 1260:2009.

The objective of this Standard is to outline minimum requirements for the manufacture and performance of PVC-U pipes and fittings for non-pressure drain, waste and vent (DWV) applications for use by manufacturers, specifiers and purchasers of such products.

The test criteria specified apply to pipes and fittings at the time of manufacture and are not intended to be used to assess the results from tests on pipes or fittings that have been in service.

For pipes of nominal diameter up to and including 80 mm, the pipes are specified solely in terms of the materials used and dimensions. There is no pipe stiffness requirement regardless of pipe type, as the stiffness of pipes in this size range is considerably higher than the minimum values used for larger pipes. By continuing to specify in terms of dimensions, the Standard ensures that existing installation practices, for example, the spacing between supports on near horizontal runs, can continue to be used. Most pipes installed above ground are in this size range.

Pipes of nominal size of 100 mm and above are specified in terms of minimum stiffness. Sufficient dimensional information is provided to ensure compatible joints and resistance to abrasion.

Pipes are specified in terms of stiffness classes measured in a standard test. The classes are not exactly the same as the earlier classification scheme (Class SH and Class SEH) but are similar. Classes SN4 and SN6 are suggested for plumbing and domestic use and for general municipal drainage.

Classes SN8 and SN10 are suggested for general municipal drainage and installations where higher pipe stiffness is required to minimize deflection of the installed pipes due to the load imposed by the backfill or surcharge or to poor installation practice.

Stiffness Class SN16 has been included in response to a request from New Zealand users who previously specified Class SEH-C for applications where heavy loads, for example, traffic loads, acted on buried pipes. Australian Standards for sewer and drainage pipes have not included a pipe of similar stiffness in the past and Australian manufacturers may not have DWV pipes of this class generally available.

It should be noted that, by convention, plastics pipe systems are often designed on the basis of 50 years extrapolated test data. This is established international practice but is not intended to imply the service life of drainage pipes is limited to 50 years. For correctly manufactured and installed systems, the actual life cannot be predicted, but can logically be expected to be well in excess of 100 years before major rehabilitation is required.

Appendix C sets out the provisions for best environmental practice PVC for drain, waste and vent applications. These provisions are in accordance with the credit criteria established by the Green Building Council of Australia in their Green Star rating program.

For best environmental practice PVC satisfying the provisions of Appendix C, an attestation of conformity for upstream materials such as chlorine and vinyl chloride, is necessary. Such attestations can take the form of a declaration of conformity prepared and maintained in accordance with AS ISO/IEC 17050, *Conformity assessment—Supplier's declaration of conformity*, Part 1: *General requirements*, and Part 2: *Supporting documentation*. Part 1 addresses the contents of the declaration of conformity and the procedures necessary to ensure ongoing conformity. Part 2 addresses the documentation required to support a declaration of conformity including the contents, traceability, availability and retention period.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard.

## CONTENTS

	<i>Page</i>
<b>SECTION 1 SCOPE AND GENERAL</b>	
1.1 SCOPE.....	6
1.2 APPLICATION .....	6
1.3 NORMATIVE REFERENCES .....	6
1.4 DEFINITIONS.....	8
1.5 RING BENDING STIFFNESS .....	9
1.6 NOTATION.....	9
1.7 CLASSIFICATION .....	10
<b>SECTION 2 GENERAL REQUIREMENTS</b>	
2.1 GENERAL.....	11
2.2 COMPOSITION .....	11
2.3 COLOUR.....	11
2.4 FREEDOM FROM DEFECTS .....	11
2.5 REQUIREMENTS FOR ELASTOMERIC SEALS .....	12
2.6 SOLVENT CEMENTS.....	12
2.7 PACKAGING, STORAGE AND TRANSPORTATION .....	12
2.8 ADDITIONAL REQUIREMENTS FOR BEST ENVIRONMENTAL PRACTICE PVC PIPES AND FITTINGS .....	12
<b>SECTION 3 PERFORMANCE REQUIREMENTS</b>	
3.1 GENERAL.....	13
3.2 TESTS ON PIPES.....	13
3.3 TESTS ON MOULDED AND FABRICATED FITTINGS .....	14
3.4 TESTS ON ELASTOMERIC SEAL JOINTS .....	15
3.5 ADDITIONAL TESTS ON PIPE AND FITTINGS CONTAINING RECYCLED UNPLASTICIZED PVC .....	16
<b>SECTION 4 PIPES</b>	
4.1 GENERAL.....	17
4.2 DIAMETER AND WALL THICKNESS.....	17
4.3 LENGTH .....	17
4.4 PIPE SPIGOT ENDS .....	17
4.5 SOCKETS FORMED ON PIPE ENDS.....	17
4.6 MARKING .....	22
4.7 WITNESS MARK .....	22
<b>SECTION 5 MOULDED FITTINGS</b>	
5.1 GENERAL.....	23
5.2 DIMENSIONS OF MOULDED FITTINGS .....	23
5.3 WALL THICKNESS .....	25
5.4 GEOMETRY OF FITTINGS.....	26
5.5 THREADED END CONNECTIONS.....	28
5.6 TEST OPENINGS .....	28
5.7 ACCESS OPENINGS.....	29
5.8 GRATINGS .....	31
5.9 BOLTED TRAP SCREWS .....	31
5.10 OVERFLOW RELIEF GRATINGS .....	31
5.11 MARKING .....	31

## SECTION 6 FABRICATED FITTINGS

6.1	GENERAL.....	33
6.2	MATERIALS.....	33
6.3	CONFORMITY .....	33
6.4	MARKING .....	33

## SECTION 7 ELASTOMERIC SEAL JOINTS

7.1	GENERAL.....	34
7.2	DESIGN .....	34
7.3	EFFECTIVE SEALING LENGTH .....	34

## APPENDICES

A	MEANS FOR DEMONSTRATING CONFORMITY WITH THIS STANDARD .....	36
B	TYPICAL RANGE OF MOULDED FITTINGS FOR DWV APPLICATIONS .....	40
C	ADDITIONAL REQUIREMENTS FOR BEST ENVIRONMENTAL PRACTICE PVC PIPES AND FITTINGS .....	55

BIBLIOGRAPHY .....	58
--------------------	----

## STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

**Australian/New Zealand Standard****PVC-U pipes and fittings for drain, waste and vent applications**

## SECTION 1 SCOPE AND GENERAL

**1.1 SCOPE**

This Standard specifies requirements for PVC-U pipes and fittings for sewer, drain, waste and vent applications above ground or below ground and is intended to be used where the pipeline is operating under gravity flow and the operating pressure is low. The Standard includes requirements for both plain and structured wall pipes and fittings.

NOTE: Requirements for the installation and use of pipes manufactured to this Standard are set out in AS/NZS 2032, AS/NZS 2566.1, AS/NZS 2566.2, AS/NZS 3500.2, AS/NZS 3500.5, WSA 02 and WSA 06.

Appendix C sets out additional requirements for pipes and fittings classed as best environmental practice PVC for drain, waste and vent applications.

**1.2 APPLICATION**

Fittings in accordance with this Standard shall satisfy the date marking requirements within three months of publication of this revision.

Appendix A specifies a means of demonstrating conformance with this Standard. Appendix A also sets out the minimum requirements for a sampling and testing plan. Where variations to this plan are made, demonstration of conformance with the minimum requirements may be necessary.

**1.3 NORMATIVE REFERENCES**

The following are the normative documents referenced in this Standard:

NOTE: Documents referenced for guidance and informative purposes are listed in the Bibliography.

AS	
681	Elastomeric seals—Material requirements for pipe joint seals used in water and drainage applications
681.1	Part 1: Vulcanized rubber
681.2	Part 2: Thermoplastic elastomers
1172	Water closets (WCs)
1172.1	Part 1: Pans
1199	Sampling procedures for inspection by attributes
1199.1	Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection
1646	Elastomeric seals for waterworks purposes
2700	Colour standards for general purposes
2887	Plastic waste fittings