Australian/New Zealand Standard™

PVC-U pipes and fittings for drain, waste and vent application

Standards Australia

STANDARDS NEW ZEALAND
Paerewa Aotearoa

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The following are represented on Committee PL-021:

Australian Gas Association
Australian Nuclear Science and Technology Organisation
CSIRO Building, Construction and Engineering
Certification Bodies (Australia)
Institution of Engineers Australia
Local Government New Zealand
Master Plumbers Australia
Master Plumbers, Gasfitters and Drainlayers New Zealand
New Zealand Water and Waste Association
PVC Pipelines Industry Association of Australasia Limited
Plastics Institute of New Zealand
Plastics and Chemicals Industries Association Incorporated
Water Services Association of Australia

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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 1260:1999.

This Standard covers PVC-U pipes and fittings for sewerage applications, for soil, waste and vent applications and drain applications in both Australia and New Zealand.

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 should not 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.

Class SN4 and Class SN6 are considered to be suitable for plumbing and domestic use.

Class SN8 and Class SN10 are suitable for general municipal drainage, deeper burial and similar applications where higher pipe stiffness is required to minimize deflection of the installed pipes due to the load imposed by the back fill 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.

This revision provides for injection moulded-fittings of diameters greater than DN150 with parallel solvent-welded sockets. These fittings are predominantly imported fittings and have no specific requirements for colour or titanium dioxide to provide UV protection. Additional marking requirements have been specified for these fittings to highlight the parallel sockets, the need for gap-filling solvent cements and UV protection when used outdoors.

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.

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1.1 SCOPE

This Standard specifies requirements for PVCU pipes and fittings for sewer, drain, waste and vent applications above-ground or below ground and 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: Pipes manufactured to this Standard should only be used and installed in accordance with AS 2032, AS/NZS 2566, AS 3500 and NZS 7643.

Methods of demonstrating compliance with this Standard are given in Appendix A.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS	
1172	Water closets of 6/3 L capacity
1172.1	Part 1: Pans
1199	Sampling procedures and tables for inspection by attributes
1646	Elastomeric seals for waterworks purposes (all parts)
2032	Code of practice for installation of UPVC pipe systems
2700	Colour standards for general purposes
2887	Plastic waste fittings
AS/NZS	
1462	Methods of test for plastics pipes and fittings
1462.1	Method 1: Method for determining the dimensions of pipes and fittings
1462.2	Method 2: Method for determining the flattening properties of plastics pipes and fittings
1462.3	Method 3: Method for determining the impact characteristics of plastics pipes
1462.4	Method 4: Method of determining reversion of UPVC pipes
1462.8	Method 8: Method of test for infiltration
1462.10	Method 10: Method for hydrostatic pressure testing of fittings and elastomeric seal joints for non-pressure applications
1426.11	Method 11: Method for high temperature stress-relief testing of fittings
1462.13 (Int)	Method 13 Method for the determination of compression characteristics of a rubber ring joint for resistance to root penetration
1462.16	Method 16: Method for high temperature testing of pipe
1462.21	Method 21: Method for determination of bond strength
1462.22	Method 22: Method for the determination of pipe stiffness
1462.23	Method 23: Method for determining the ring flexibility
1477	PVC pipes and fittings for pressure applications