AS ISO 6993.3—2007
ISO 6993-3:2006
Reconfirmed 2017

Australian Standard®

Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels

Part 3: Fittings and saddles for a maximum operating pressure of 1 bar (100 kPa)

This Australian Standard® was prepared by Committee PL-021, PVC, ABS and Polyamide Pipe Systems. It was approved on behalf of the Council of Standards Australia on 9 March 2007.
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The following are represented on Committee PL-021:

- Australian Chamber of Commerce and Industry
- CSIRO Manufacturing and Materials Technology
- Certification Interests
- Energy Networks Association
- Engineers Australia
- Local Government New Zealand
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- New Zealand Water and Waste Association
- Plastic Industry Pipe Association of Australia
- Plastics New Zealand
- Water Services Association of Australia

This Standard was issued in draft form for comment as DR 06622.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through public comment period.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS ISO 6993.3—2007

Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels

Part 3: Fittings and saddles for a maximum operating pressure of 1 bar (100 kPa)

RECONFIRMATION NOTICE

Technical Committee PL-021 has reviewed the content of this publication and in accordance with Standards Australia procedures for reconfirmation, it has been determined that the publication is still valid and does not require change.

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Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 27 April 2017.

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NOTES

Australian Standard®

Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels

Part 3: Fittings and saddles for a maximum operating pressure of 1 bar (100 kPa)

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PREFACE

This Standard was prepared by Standards Australia's Committee PL-021, PVC, ABS and Polyamid Pipe Systems, to supersede (in part) the AS 1464 series *Plastics pipes and fittings for gas reticulation—Unplasticized PVC (UPVC)*.

The objective of this revision is to adopt the ISO 6993 series of Standards, *Buried, high-impact poly (vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels.*

This Standard is identical to and has been reproduced from ISO 6993-3:2006, *Buried, high-impact poly (vinyl chloride)(PVC-HI) piping systems for the supply of gaseous fuels*—Part 3: *Fittings and saddles for a maximum operating pressure of 1 bar (100 kPa).*

The other parts in this series of Australian Standards are the following:

AS ISO 6993 *Buried, high-impact poly (vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels*

AS ISO 6993.1 Part 1: *Pipes for a maximum operating pressure of 1 bar (100 kPa)* (adoption with modifications of ISO 6993-1:2006)

AS ISO 6993.2 Part 2: *Fittings for a maximum operating pressure of 200 mbar (20 kPa)* (adoption of ISO 6993-2:2006)

NOTE: ISO 6993-4:2006 *Buried, high impact poly (vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels—Part 4: Code of practice for design, handling and installation* has not been adopted in this series of Australian Standards. The subject is covered by other existing Australian Standards, particularly AS 3723 *Installation and maintenance of plastic pipe systems for gas* and AS 5601 *Gas installations*.

As this Standard is reproduced from an international standard, the following applies:

(a) Its number appears on the cover and title page while the international standard number appears only on the cover

(b) In the source text 'ISO 6993-3' should read 'AS 6993.3'.

(c) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard ISO		Australian/New Zealand Standard AS/NZS	
2507-1	Thermoplastics pipes and fittings—Vicat softening temperature Part 1: General test method	1462.5	Methods of test for plastics pipes and fittings Method 1: Vicat softening temperature
3126	Plastics piping systems—Plastics components—Determination of dimensions	1462.1	Methods of test for plastics pipes and fittings Method 2: Method for determining the dimensions of pipes and fittings
6993-1	Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels Part 1: Pipes for a maximum operating pressure of 1 bar (100 kPa)	6993.1	Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels Part 1: Pipes for a maximum operating pressure of 1 bar (100 kPa)

9080	Plastics piping and ducting systems—Determination of the long-term hydrostatic strength of thermoplastics materials in pipe form by extrapolation	1462.29	Method of test for plastics pipes and fittings—Plastics piping and ducting systems Method 29: Determination of the long-term hydrostatic strength of thermoplastics materials in pipe form by extrapolation (ISO 9080:2003, MOD)

The terms ‘normative’ and ‘informative’ are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.

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1 Scope

This part of ISO 6993 gives the requirements for full-end load-resistant fittings and saddles made of high-impact poly(vinyl chloride) (PVC-HI) intended to be used for the supply of gaseous fuels through buried pipelines having an operating temperature range of 0 °C up to and including +30 °C and a maximum operating pressure of 1 bar (100 kPa) [1)].

It is applicable only to fittings and saddles manufactured from the high-impact PVC materials PVC-A, PVC-CPE and PVC-EPR. It is applicable to joints with elastomeric sealing elements and of the solvent cement type. The fittings and saddles are suitable for those gases not containing potentially damaging components in such concentrations as to impair the properties of the fitting/saddle material.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 580:2005, *Plastics piping and ducting systems — Injection-moulded thermoplastics fittings — Methods for visually assessing the effects of heating*

ISO 2507-1, *Thermoplastics pipes and fittings — Vicat softening temperature — Part 1: General test method*

ISO 2507-2, *Thermoplastics pipes and fittings — Vicat softening temperature — Part 2: Test conditions for unplasticized poly(vinyl chloride) (PVC-U) or chlorinated poly(vinyl chloride) (PVC-C) pipes and fittings and for high impact resistance poly(vinyl chloride) (PVC-HI) pipes*

ISO 3126, *Plastics piping systems — Plastics components — Determination of dimensions*

ISO 3127, *Thermoplastics pipes — Determination of resistance to external blows — Round-the-clock method*

ISO 4422-3:1996, *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications — Part 3: Fittings and joints*

ISO 6993-1:2006, *Buried, high-impact poly(vinyl chloride) (PVC-HI) piping systems for the supply of gaseous fuels — Part 1: Pipes for a maximum operating pressure of 1 bar (100 kPa)*

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1) 1 bar = 0,1 MPa = 10^5 Pa; 1 MPa = 1 N/mm^2