

Australian/New Zealand Standard™

**Installation of polyethylene pipe
systems**



AS/NZS 2033:2008

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee PL-006, Polyolefin Pipe Systems. It was approved on behalf of the Council of Standards Australia on 10 April 2008 and on behalf of the Council of Standards New Zealand on 9 April 2008.

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The following are represented on Committee PL-006:

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Certification Interests (Australia)
CSIRO Manufacturing & Infrastructure Technology
Energy Networks Association
Engineers Australia
Master Plumbers, Gasfitters and Drainlayers New Zealand
New Zealand Water and Waste Association
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AS/NZS 2033:2008
(Incorporating Amendment Nos 1 and 2)

Australian/New Zealand Standard™

Installation of polyethylene pipe systems

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-006, Polyolefin Pipe Systems to supersede AS 2033—1980.

This Standard incorporates Amendment No. 1 (October 2008) and Amendment No. 2 (June 2009). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide uniform procedures for the installation of polyethylene (PE) pipe systems for both above and below ground applications.

The objective of this revision is to update the Standard with respect to current practice and publish it as a joint Australian/New Zealand Standard.

This Standard primarily addresses the installation of polyethylene (PE) pipes and fittings for plumbing, industrial and irrigation applications and is not intended to replace industry specific installation codes or regulations.

For plumbing applications, reference should also be made to AS/NZS 3500, *Plumbing and drainage* (all parts). For above ground applications using structured wall pipes, reference should also be made to the manufacturer.

For installations conveying gaseous fluids, reference should be made to AS 5601, *Gas installations* and AS 3723, *Installation and maintenance of plastics pipe systems for gas*, as appropriate and in New Zealand NZS 5258, *Gas distribution*.

NOTE: Reference to AS 3723 correct at time of publishing, however, future reference will be made to AS 4645, *Gas distribution networks, Part 3: Plastics pipe systems*.

For water supply and sewerage network infrastructure involving the design and installation of PE pipe systems, reference should be made to Water Services Association of Australia (WSAA) codes.

For design and installation of buried flexible pipelines, reference should be made to AS/NZS 2566.1, *Buried flexible pipelines Part 1: Structural design* and AS/NZS 2566.2, *Buried flexible pipelines, Part 2: Installation* or ISO 21138-1.

A bibliography is provided in Appendix A for references that may be used to provide more detailed explanations or information regarding the installation of PE pipes.

For electrical installations, reference should be made to AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*.

Australian and New Zealand Standards generally do not—

- (a) restate the duties of employers, employees, designers and installers; or
- (b) determine the applicability of regulatory limitations; or
- (c) determine appropriate health and safety practices.

Statements expressed in mandatory terms in notes to tables are deemed to be requirements of this Standard. Notes to text are for information and guidance only.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

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Australian/New Zealand Standard
Installation of polyethylene pipe systems

SECTION 1 SCOPE, DEFINITIONS AND
 MATERIAL REQUIREMENTS

1.1 SCOPE

This Standard sets out methods for handling, storage, installation, testing and commissioning of polyethylene (hereinafter referred to as PE) pipelines, above or below ground, for both pressure and non-pressure applications conveying fluids.

NOTE: Where PE pipelines are to be installed underground the safe installation depths are calculated by reference to AS/NZS 2566.2.

This Standard applies to PE pipe systems that carry liquids under either pressure or gravity flow situations and the components of which comply with, but are not limited to, the following:

- (a) AS 2698.2—PE rural pipe.
- (b) AS/NZS 4129—Fittings for PE pipes for pressure applications.
- (c) AS/NZS 4130—PE pipes for pressure applications.
- (d) AS 4176—Polyethylene/aluminium and cross-linked polyethylene/aluminium macro-composite pipes for pressure applications.
- (e) AS/NZS 4401—PE pipe for soil and waste discharge.
- (f) AS/NZS 4798(Int)—PE maintenance shafts.
- (g) AS 4799—Underground installation within railway boundaries.
- (h) AS/NZS 5065—PE and PP pipes for drainage and sewerage.

1.2 NORMATIVE REFERENCES

The following referenced documents are indispensable for the application of this document.

AS

1345	Identification of the contents of pipes, conduits and ducts
1646	Elastomeric seals for waterworks purposes (all parts)
2698	Plastics pipes and fittings for irrigation and rural applications
2698.2	Part 2: Polyethylene rural pipe
4176	Polyethylene/aluminium and cross-linked polyethylene/aluminium macro-composite pipe systems for pressure applications
4799	Installation of underground utility services and pipelines within railway boundaries

AS/NZS

2566	Buried flexible pipelines
2566.1	Part 1: Structural design
2566.2	Part 2: Installation