

# AS/NZS 2033:2024 DESIGN AND INSTALLATION OF POLYOLEFIN PIPE SYSTEMS

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## Summary

AS/NZS 2033:2008 Installation of polyethylene pipe systems has undergone a significant review. Previously the standard only applied to polyethylene pipe systems.

The new standards is now called:

AS/NZS 2033:2024 Design and installation of polyolefin pipe systems.

This standard now covers all polyolefins – including polybutylene, polyethylene, polypropylene, and cross-linked polyethylene.

## Key Changes

The following table provides a summary by section of the changes and additions to the new standard.

Previous Version AS/NZS 2033:2008	Updated Version AS/NZS 2033:2024	Commentary
<b>Section 1</b> – Scope, definitions, and material requirements	<b>Section 1</b> – Scope and general	Expanded normative references and definitions.
<b>Section 2</b> – Products and materials	<b>Section 2</b> – Products and materials	Minor changes – UV resistance clause covers all listed polyolefin materials.
<b>Not covered in this version of the standard</b>	<b>Section 3</b> – Design	Design is a new section covering various aspects of design such as: <ul style="list-style-type: none"> <li>› Calculation of maximum allowable operating pressures</li> <li>› Design coefficients</li> <li>› Material temperature ratings</li> <li>› Surge and fatigue pressure ratings</li> <li>› Disinfection effects</li> <li>› Seismic risk area design</li> <li>› External load design</li> <li>› Effects of sunlight and fire</li> </ul>
<b>Section 3</b> – General Requirements	<b>Section 4</b> – General requirements	Minor updates to the current standard with some expanded details.  New clause covering 'Buckling under external load and vacuum'.
<b>Section 4</b> – Joining Methods	<b>Section 5</b> – Joining Methods	Fusion joints section expanded to cover a range of techniques.  Mechanical fitting types has been expanded.

Previous Version AS/NZS 2033:2008	Updated Version AS/NZS 2033:2024	Commentary
<b>Section 5</b> – Installation of buried pipes and fittings	<b>Section 6</b> – Installation of buried pipes and fittings	<p>New clause covering ‘Structural design of buried pipes and fittings.’</p> <p>Inclusion of ‘Graphical design method’ developed by The European Plastic Pipes and Fittings Association (TEPPFA). Referencing PIPA document.</p> <p>Installation of buried pipes using trenchless technology with references to the relevant AS/NZS ISO series of standards covering renovation techniques.</p> <p>Further details provided regarding bending of pipes.</p>
<b>Section 6</b> – Installation of pipes above ground	<b>Section 7</b> – Installation of pipes above ground	Further details have been provided regarding ‘Support of pipe systems’, this includes updated maximum spacing of sliding supports for pressure and non-pressure pipes.
<b>Section 7</b> – Testing of pipe system	<b>Section 8</b> – Hydrostatic pressure acceptance testing of PO pipe systems	<p>Extensive updates to this section of the standard. More detailed instruction plus the inclusion of graphical examples.</p> <p>New clauses of note: –</p> <p><b>8.3</b> Effect of elevation change along the pipe system. Covers both uniform grade and significant elevation along the line scenarios.</p> <p><b>8.4</b> Testing PE pipes at elevated temperatures.</p> <p><b>8.7</b> Pressure testing personnel and equipment.</p> <p><b>8.8</b> Pre-test requirements.</p> <p><b>8.10</b> Pressure acceptance test methods.</p>
<b>Section 8</b> – Commissioning	<b>Section 9</b> – Commissioning	Minor changes – editorial in nature.
<b>Section 9</b> – Compressed Gases	<b>Section 10</b> – Compressed Gases	UV resistance now covered in section 2.
<b>Not covered in this version of the standard</b>	<b>Section 11</b> – Gaseous fuels	New short section, refers to AS/NZS 4645.3 and APGA Code of Practice, Upstream Gathering Networks – CSG Industry.
<b>Appendix B</b> – Commissioning guide	<b>Appendix A</b> – Commissioning guide	Minor changes – editorial in nature.
<b>Not covered in this version of the standard</b>	<b>Appendix B</b> – (informative) Guidelines for PE pipe installation in earthquake zones	New.
<b>Appendix A</b> –Bibliography	Bibliography	No longer an appendix as bibliography has considerably expanded.