

Australian/New Zealand Standard™

Installation of ABS pipe systems



AS/NZS 3690:2009

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 24 March 2009 and on behalf of the Council of Standards New Zealand on 13 March 2009. This Standard was published on 26 May 2009.

The following are represented on Committee PL-021:

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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 3690—1989.

The objective of this Standard is to provide uniform procedures for the installation of ABS pipe systems for both above, and below, ground applications.

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

This Standard primarily addresses the installation, testing and commissioning of ABS pipes and fittings for water plumbing, drainage, stormwater drainage, and industrial and irrigation applications and is not intended to replace industry-specific installation codes or regulations. Site specific characteristics may require provisions additional to the requirements in this Standard.

For plumbing applications, reference should also be made to AS/NZS 3500, *Plumbing and drainage* (all parts).

For water supply and sewerage network infrastructure involving the design and installation of ABS pipelines, 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: Design* and AS/NZS 2566.2, *Buried flexible pipelines, Part 2: Installation*.

ABS pipe and fitting compounds may be rerated to higher or lower temperatures, according to their ABS classification, within the temperature range of 0 to 60°C. Thermal rerating of ABS pipes at temperatures above or below 20°C is covered in AS/NZS 3518.

Further references are listed in Appendix A, which may be used to provide more detailed explanations or information regarding the installation of ABS pipelines.

For electrical installations, reference should be made to AS/NZS 3000, *Electrical installations*.

Australian and New Zealand Standards generally do not—

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

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

Notes to text are for information and guidance only.

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.

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SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out methods for handling, storage, installation, testing and commissioning of acrylonitrile butadiene styrene (ABS) pipelines conveying liquids, above or below ground, for pressure and non-pressure applications.

This Standard is applicable to ABS pipelines carrying liquids under either pressure or gravity flow situations and the components of which comply with, but are not limited to AS/NZS 3518, *Acrylonitrile butadiene styrene (ABS) compounds, pipes and fittings for pressure applications*.

1.2 NORMATIVE REFERENCES

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

NOTE: Informative references are listed in Appendix A.

AS

1646 Elastomeric seals for waterworks purposes

AS/NZS

2566 Buried flexible pipelines

2566.2 Part 2: Installation

3500 Plumbing and drainage

3500.0 Part 0: Glossary of terms

3500.1 Part 1: Water services

3518 Acrylonitrile butadiene styrene (ABS) compounds, pipes and fittings for pressure applications.

3879 Solvent cements and priming fluids for PVC (PVC-U and PVC-M) and ABS pipes and fittings

4020 Testing of products for use in contact with drinking water

4327 Metal-banded flexible couplings for low-pressure applications

4793 Mechanical tapping bands for waterworks purposes

1.3 DEFINITIONS

For the purpose of this Standard the definitions in AS/NZS 3500.0 and the ones below apply.

1.3.1 Embankment and trench zones

Embankment and trench zones as shown in AS/NZS 2566.2.

1.3.2 Environmental stress cracking

The premature initiation of cracking and embrittlement due to the combined action of stress and strain and contact with particular fluids.