

Australian Standard[®]

**Multilayer pipes for pressure
applications**

**Part 7: Multilayer piping systems for hot
and cold water plumbing applications—
Assessment of conformity
(ISO/TS 21003-7:2008, MOD)**

STANDARDS
Australia



This Australian Standard® was prepared by Committee PL-006, Polyolefin Pipe Systems. It was approved on behalf of the Council of Standards Australia on 3 March 2010. This Standard was published on 30 March 2010.

The following are represented on Committee PL-006:

- Certification Interests (Australia)
 - Energy Networks Association
 - Engineers Australia
 - Master Plumbers, Gasfitters and Drainlayers New Zealand
 - National Plumbing Regulators Forum
 - New Zealand Water & Waste Association
 - Plastics Industry Pipe Association of Australia
 - Plastics New Zealand
 - Plumbing Products Industry Group
 - Water Services Association of Australia
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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 the public comment period.

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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee PL-006, Polyolefin Pipe Systems, to supersede (in part) AS 4176—1994 *Polyethylene/aluminium and cross-linked polyethylene/aluminium macro-composite pipe systems for pressure applications*.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to give guidance for the assessment of conformity of material components, joints and assemblies and it is intended to be used by certification bodies, inspection bodies, testing laboratories and manufacturers.

This Standard is an adoption with national modifications and has been reproduced from ISO/TS 21003-7, *Multilayer piping systems for hot and cold water installations inside buildings, Part 7: Guidance for the assessment of conformity*. The modifications and additional requirements are set out in Appendix ZZ. Appendix ZA has been included to specify requirements on means of demonstrating compliance with this Standard.

As this Standard is reproduced from an International Technical Specification, the following applies:

- (a) Its number does not appear on each page of text and its title appears only on the cover page.
- (b) In the source text ‘this Technical Specification’ should read ‘this part of AS 4176’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

The term ‘normative’ has been used in this Standard to define the application of the annex or appendix to which it applies. A ‘normative’ annex or appendix is an integral part of a Standard.

Statements expressed in normative text or in footnotes to tables are deemed to be requirements of this Standard.

None of the normative references listed in Clause 2 have been adopted as Australian or Australian/New Zealand Standards.

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INTRODUCTION

ISO 21003 specifies the requirements for multilayer piping systems. The piping system is intended to be used for hot and cold water installations inside buildings.

In respect of potentially adverse effects on the quality of water intended for human consumption, caused by the products covered by ISO 21003:

- no information is provided as to whether the product may be used without restriction in any of the member states of the EU or EFTA;
- it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of these products remain in force.

Requirements and test methods for material and components are specified in ISO 21003-2 and ISO 21003-3. Characteristics relating to fitness for purpose (mainly for joints) are covered in ISO 21003-

This Technical Specification gives guidance for the assessment of conformity of materials, components, joints and assemblies and it is intended to be used by certification bodies, inspection bodies, testing laboratories and manufacturers.

AUSTRALIAN STANDARD

Multilayer pipes for pressure applications

Part 7:

**Multilayer piping systems for hot and cold water plumbing applications—
Assessment of conformity (ISO/TS 21003-7:2008, MOD)****1 Scope**

This Technical Specification is applicable, in conjunction with the other parts of ISO 21003 (see Foreword), to multilayer piping systems intended to be used for hot and cold water installations inside buildings for the conveyance of water — whether or not the water is intended for human consumption (domestic systems) or for heating systems — under specified design pressures and temperatures appropriate to the class of application (see Table 1 of ISO 21003-1:2008). It gives guidance for the assessment of conformity, to be included in the manufacturer's quality plan as part of the quality system.

It includes:

- requirements for materials, components, joints and assemblies given in the applicable part(s) of ISO 21003;
- requirements for the manufacturer's quality system (e.g. ISO 9001 [2]);
- definitions and procedures to be used if third-party certification is involved.

NOTE If third-party certification is involved, it is recommended that the certification body be accredited to ISO/IEC Guide 65 [3] or ISO/IEC 17021 [4], as applicable.

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 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3951-1, *Sampling procedures for inspection by variables — Part 1: Specification for single sampling plans indexed by acceptance quality limit (AQL) for lot-by-lot inspection for a single quality characteristic and a single AQL*

ISO 17456-2006, *Plastics piping systems — Multilayer pipes — Determination of long-term strength* (identical to EN ISO 17456:2006)

ISO 21003-1:2008, *Multilayer piping systems for hot and cold water installations inside buildings — Part 1: General* (identical to EN ISO 21003-1:2008)

ISO 21003-2:2008, *Multilayer piping systems for hot and cold water installations inside buildings — Part 2: Pipes* (identical to EN ISO 21003-2:2008)