AS/NZS 4401:2006
ISO 8770:2003
Reconfirmed 2017

AS/NZS 4401:2006

Australian/New Zealand Standard™

Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings—Polyethylene (PE)

STANDARDS Australia

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

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 30 January 2006 and on behalf of the Council of Standards New Zealand on 10 February 2006.
This Standard was published on 7 March 2006.

The following are represented on Committee PL-006:

AUSTAP
CSIRO Manufacturing and Infrastructure Technology
Certification Interests (Australia)
Energy Networks Association
Engineers Australia
Master Plumbers, Gasfitters and Drainlayers New Zealand
New Zealand Water and Waste Association
Plastics Industry Pipe Association of Australia
Plastics New Zealand
Water Services Association of Australia

Keeping Standards up-to-date

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 4401:2006

Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings—Polyethylene (PE)

RECONFIRMATION NOTICE

Technical Committee PL-006 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.

Certain documents referenced in the publication may have been amended since the original date of publication. Users are advised to ensure that they are using the latest versions of such documents as appropriate, unless advised otherwise in this Reconfirmation Notice.

Approved for reconfirmation in accordance with Standards Australia procedures for reconfirmation on 20 January 2017.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 13 December 2016.

The following are represented on Technical Committee PL-006:

Association of Accredited Certification Bodies
Australian Industry Group
Energy Networks Association
Engineers Australia
New Zealand Employers and Manufacturers Association (Central)
Plastics Industry Pipe Association of Australia
Plastics New Zealand
Plumbing Products Industry Group
Water New Zealand
Water Services Association of Australia

NOTES

Australian/New Zealand Standard™

Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings—Polyethylene (PE)

Originated as AS/NZS 4401 (Int):1999.
Redesignated and published as AS/NZS 4401:2006.

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 7293 5

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-006, Polyolefin pipe systems, to supersede AS/NZS 4401(Int):1999.

This Standard is an adoption with national modifications and has been reproduced from ISO 8770:2003, *Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings—Polyethylene (PE)*.

AS/NZS 4401(Int.):1999 was based on a previous edition of ISO 8770 (ISO 8770:1991), *High density polyethylene (PE-HD) pipes and fittings for soil waste discharge (low and high temperature) systems inside buildings—Specifications*, and included a number of variations to the technical contents of the ISO Standard for use in Australia and New Zealand.

Following the publication of the 2003 edition of ISO 8770 such Australian/New Zealand variations to the technical contents are no longer required and the current edition of the Standard is fully equivalent to the ISO Standard.

Minor variations to the ISO Standard have been included in this document, which relate to normative references and marking requirements and do not change its technical contents.

Variations to ISO 8770:2003 are indicated at the appropriate places throughout this Standard. Strikethrough (~~example~~) identifies ISO text which, for the purposes of this Australian/New Zealand Standard, is deleted. Where text is added, it is set in the proper place and identified by shading (example).

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

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this international Standard' should read 'this Australian/New Zealand', and 'ISO 8770' should read 'AS/NZS 4401'.

(c) A full point should be substituted for a comma when referring to a decimal marker.

In this Standard, statements expressed in mandatory terms in notes for figures are deemed to be requirements of the Standard.

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 where as informative annex is only for information and guidance.

CONTENTS

Page

INTRODUCTION

Pipes and fittings conforming to this International Standard also meet the requirements of EN 1519-1 which are applicable to those pipes and fittings which, according to EN 1519-1, are intended to be used inside buildings (application area code “B”, see EN 1519-1) only.

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard

Plastics piping systems for soil and waste discharge (low and high temperature) inside buildings—Polyethylene (PE)

Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

1 Scope

This International Standard specifies the requirements for solid-wall polyethylene (PE) pipes and fittings for soil and waste discharge (low and high temperature) inside buildings, as well as the system itself. It does not include buried pipework.

It also specifies the test parameters for the test methods referred to in this International Standard.

This International Standard is applicable to PE pipes and fittings, as well as assemblies of such pipes and fittings, intended to be used for the following purposes:

a) soil and waste discharge pipework for the conveyance of domestic waste waters (low and high temperature);

b) ventilation pipework associated with a);

c) rainwater pipework inside the building.

It is applicable to pipes and fittings designed for jointing by means of elastomeric sealing rings or by butt fusion or electrofusion.

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 265-1, *Pipes and fittings of plastics materials — Fittings for domestic and industrial waste pipes — Basic dimensions: Metric series — Part 1: Unplasticized poly(vinyl chloride) (PVC-U)*

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

ISO 1133:1997, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics*

ISO 2505, Thermoplastics pipes—Longitudinal reversion—Test method and parameters

ISO 3126~~:—1),~~ *Plastics piping systems — Plastics components — Determination of dimensions*

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

~~1) To be published. (Revision of ISO 3126:1974)~~