

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

RECONFIRMATION

OF

AS/NZS 1462.19:2006

Methods of test for plastics pipes and fittings

Method 19: C-ring test for fracture toughness of PVC pipes

RECONFIRMATION NOTICE

Technical Committee PL-021 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 27 April 2017.

Approved for reconfirmation in New Zealand on behalf of the Standards Council of New Zealand on 10 August 2017.

The following are represented on Technical Committee PL-021:

Association of Accredited Certification Bodies
Australian Building Codes Board
Chemistry Australia
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Local Government New Zealand
New Zealand Employers and Manufacturers Association (Central)
Plastics Industry Pipe Association of Australia
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NOTES

Australian/New Zealand Standard™

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL-045, Plastics Pipe Systems Test and Calculation, to replace the interim edition AS/NZS 1462.19(Int):2003 without technical changes but incorporating a number of editorial amendments, corrections and clarifications.

This Standard is based on ISO 11673:2005, *Unplasticized poly(vinyl chloride) (PVC-U) pressure pipes—Determination of the fracture toughness properties*.

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.

METHOD

1 SCOPE AND GENERAL

1.1 Scope

This Standard specifies a method for establishing the minimum fracture toughness of unplasticized poly(vinyl chloride) (PVC-U) pressure pipes after a specified loading time. Provision is also made for measuring alternative levels of fracture toughness.

1.2 General

This concept of this Method is based on the assumption that the constant logarithmic reductive slope holds over a considerably long time up to 100 years survival. Measurement of the fracture toughness values at longer times than 15 min can provide a reductive slope and, as a result, can give a regression equation, which allows a more reliable toughness value to be quoted for PVC-U pressure pipes.

2 PRINCIPLE

On the basis of the prior response of a test piece to immersion in dichloromethane, a C-ring section from a pipe is notched on its internal face at the region of maximum attack by dichloromethane. The notched sample is then subjected to a sustained flexural stress for the specified test period.