

Australian Standard™

**Plastics pipes and fittings for irrigation
and rural applications**

Part 2: Polyethylene rural pipe



Standards Australia

This Australian Standard was prepared by Committee PL/6, Polyolefin Pipe Systems. It was approved on behalf of the Council of Standards Australia on 11 February 2000 and published on 3 April 2000.

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STANDARDS AUSTRALIA

RECONFIRMATION

OF

AS 2698.2—2000

Plastics pipes and fittings for irrigation and rural applications
Part 2: Polyethylene rural pipe

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NOTES

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee PL/6, Polyolefin Pipe Systems, to supersede the 1985 edition.

The objective of this edition is to align the performance requirements of this Standard with those of AS/NZS 4130, *Polyethylene (PE) pipes for pressure applications*.

The previous edition of AS 2698.2 had its performance requirements aligned with AS 1159, *Polyethylene pipes for pressure applications* which was withdrawn when it was superseded by AS/NZS 4130.

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FOREWORD

The pipe specified in this Standard has a maximum working pressure of 0.6 MPa and the pipe material has a maximum hydrostatic design stress of 5.0 MPa at 20°C. The pipe is manufactured from polyethylene compounds complying with AS/NZS 4131.

The minimum wall thicknesses for the pipes specified have been calculated from the following formula which takes into account the hydrostatic design stress of the material and the working pressure and diameter of the pipes:

$$T_{\min.} = \frac{PD_{i \max.}}{2S - P}$$

$$T_{\max.} = 1.1T_{\min.} + 0.1$$

where

$T_{\max.}$ = maximum wall thickness, in millimetres

$T_{\min.}$ = minimum wall thickness, in millimetres

$D_{i \max.}$ = maximum mean inside diameter, in millimetres

S = hydrostatic design stress of 5 MPa

P = maximum allowable working pressure of 0.6 MPa

In the interests of serviceability of the pipe, and irrespective of the calculated minimum wall thickness, this Standard does not provide for a wall thickness of less than 1.6 mm.

STANDARDS AUSTRALIA

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1 SCOPE

This Standard specifies requirements for black polyethylene pipe for use in rural applications below and above ground. It is not suitable for pipes conveying fuel gas.

NOTE: Advisory information on alternative methods for determining compliance of 'low' with this Standard is given in Appendix A of AS 4130.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

- 2033 Installation of polyethylene pipe systems
3855 Suitability of plumbing and water distribution systems products for contact with potable water

AS/NZS

- 4020 Products for use in contact with drinking water
4130 Polyethylene (PE) pipes for pressure applications
4131 Polyethylene (PE) compounds for pressure pipes and fittings

ISO

- 2505 Thermoplastic pipes—Longitudinal reversion
2505-1 Part 1: Determination methods
2505-2 Part 2: Determination parameters

TR 10837 Determination of the thermal stability of polyethylene (PE) for use in gas pipes and fittings

3 DEFINITIONS

For the purpose of this Standard the definitions of AS/NZS 4130 apply.

4 NOTATION

The following symbols are used in this Standard:

- D_e = the nominal inside diameter, in millimetres
 D_m = the mean outside diameter, in millimetres
 D_i = the mean inside diameter, in millimetres
 T = the wall thickness, in millimetres