

Australian Standard™

Test method for the resistance of pipe joints to plant root intrusion



This Australian Standard was prepared by Committee PL-045, Plastics Pipe Systems Test and Calculation Methods. It was approved on behalf of the Council of Standards Australia on 11 January 2006.
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The following are represented on Committee PL-045:

Australian Chamber of Commerce and Industry
CSIRO Manufacturing & Infrastructure Technology
Energy Networks Association
Engineers Australia
Master Plumbers, Gasfitters and Drainlayers New Zealand
New Zealand Water & Waste Association
Plastics Industry Pipe
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PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee PL-045, Plastics Pipe Systems Test and Calculation Methods.

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.

Root intrusion through pipe joints may be a major problem due to the combination of arid climate and vigorous vegetation growth. Root intrusion can result infiltration and exfiltration through pipe joints and in severe cases it can cause chokes, blocking flow through the pipeline.

Studies of elastomeric joints have shown that interfacial pressure assessment alone does not give a reliable indication of resistance to root intrusion due to other contributing factors such as pipe surface roughness, material composition and permeability.

This Standard has been developed to assess the ability of elastomeric and press fit joints as well as joints using packing medium such as grouts and sealants to resist root intrusion in sewer and storm water pipe systems.

The testing described within this Standard is performance based, using plants with root systems having the ability to penetrate joints. Studies have shown that joints, which pass this Standard, have performed well in the field whereas joints that fail have performed poorly in the field. However, successful performance in this test does not cover issues such as poor installation practice and provides no guarantee that root intrusion will not occur.