Australian/New Zealand Standard™

Methods of test for plastics pipes and fittings

Method 23: Method for determination of ring flexibility

1 SCOPE

This Standard sets out a procedure for determining the ring flexibility of plastics pipes with structured walls.

2 PRINCIPLE

Three short lengths of pipe are compressed between two rigid parallel plates, across the diameter at a constant rate of deflection. The condition of the pipes at 30% deflection is noted.

3 REFERENCED DOCUMENTS

The following documents are referenced in this Standard:

AS
2193 Calibration and classification of force-measuring systems

AS/NZS
1462 Methods of test for plastics pipes and fittings
1462.1 Part 1: Method for determining the dimensions of pipes and fittings

4 APPARATUS

The following apparatus is required:

(a) *Testing machine*—a calibrated Class B compression-testing machine of constant cross-head speed (see AS 2193).

(b) *Two parallel steel bearing plates*—of thickness not less than 6.0 mm. The plates shall be flat and clean. The stiffness of the plates shall be sufficient to prevent them from bending or deforming during the test. The length of the plates shall be at least equal to the length of the test piece. The width of the plates shall be at least 50 mm more than the contact surface with the test plate.

(c) *Measuring equipment*—capable of measuring—

(i) applied force, to an accuracy within 2%; and

(ii) deflection, of the inside diameter in the direction of loading to an accuracy of 0.1 mm or 1% of the deflection, whichever is the greater.

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