



Test method T1503

Strength of corrugated plastic sub-soil drainage pipe

NOVEMBER 2012



Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D.Dash	June 2001
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	November 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T1503 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T1503

Strength of corrugated plastic sub-soil drainage pipe

1. Scope

This test method sets out the procedure for determining the deflection under load, and creep properties, of corrugated plastic sub-soil drainage pipes.

2. Apparatus

- (a) A grade "A" universal compression-tensile strength testing machine having a useable range of 0 to 2 kN and a speed range adjustable to 5 ± 0.5 mm/minute, complying with the requirements of AS B128 "Verification of Testing Machines."
- (b) Two hardwood bearing chocks 150 mm x 65 mm x 320 mm.

3. Test Specimen

Use two 300 mm lengths of pipe for this test.

4. Test Conditions

Carry out the test at a temperature of $21^\circ \pm 5^\circ\text{C}$.

5. Procedure

- (a) Locate the pipe in contact with the bearing blocks over the full length with no row of holes in the vertical plane, or in the horizontal plane, with respect to the applied load.
- (b) Apply a load evenly at a platen speed of 5 ± 0.5 mm/minute. Zero the deflection measuring equipment when a load of 100 N has been applied. Continue to apply the load at the same rate until a total force of 800 N has been applied. Record the deflection in mm for every 100 N of applied force.
- (c) Maintain a load of 800 N for a period of 10 minutes and record the deflection.
- (d) Draw a load-deflection curve extrapolated to zero load and corrected for any initial deflection resulting from straightening of the pipe.

6. Reporting

- (a) From the corrected load-deflection curve report the load required to produce a deflection of 15% of the normal pipe diameter.
- (b) Report the creep as the increase in deflection, while the 800 N load is applied for the period of 10 minutes, as a percentage of the initial external diameter.