



**Transport**  
Roads & Maritime  
Services

# Test method T1507

Determination of the compressive  
stiffness of strip filters

NOVEMBER 2012



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## Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		New Issue – Phil Walter	G.Donald	Feb 2005
Ed 2/ Rev 0		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 T1507 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

# Test method T1507

## Determination of the compressive stiffness of strip filters

### 1. Scope

This test method sets out the method for determining the compressive stiffness of strip filters in both the vertical and horizontal directions.

- (a) The test method is derived from the method set out in Appendix H of AS 2439.1 Three test specimens shall be prepared for horizontal testing and three test specimens for vertical testing. The specimens shall have a length of  $300\text{mm} \pm 5\text{mm}$  with ends cut clean at right angles to the longitudinal axis of the strip filter. See Note (b).
- (b) Specimens which are at least 24 hours or older since manufacture, must be conditioned for a minimum of 1 hour at  $22 \pm 3^\circ\text{C}$  prior to testing.
- (c) Specimens which are less than 24 hours old since manufacture must be either conditioned for a minimum of 24 hours at  $22 \pm 3^\circ\text{C}$  or conditioned for at least one hour at less than  $4^\circ\text{C}$  followed by one hour at  $22 \pm 3^\circ\text{C}$  prior to testing.

### 2. Apparatus

- (a) A properly calibrated constant rate of extension compression testing machine. The rate of compression shall be constant within the range of  $11 \pm 2 \text{ mm/min}$ .
- (b) It is preferable that the compression testing machine be computer interfaced for ease of data collection. See Note (a).
- (c) Two metal plates of sufficient thickness to ensure rigidity at the maximum load applied during testing. The plates shall be of sufficient size to completely cover the largest strip filter to be tested and shall be flat, smooth and clean.
- (d) A water bath or cold cabinet capable of being maintained at less than  $4^\circ\text{C}$ .

### 3. Preparation

- (a) Three test specimens shall be prepared for horizontal testing and three test specimens for vertical testing. The specimens shall have a length Secure both the top and bottom plates in the test machine.
- (b) Repeat for a new specimen of  $300\text{mm} \pm 5\text{mm}$  with ends cut clean at right angles to the longitudinal axis of the strip filter. See Note (b).
- (c) Specimens which are at least 24 hours or older since manufacture, must be conditioned for a minimum of 1 hour at  $22 \pm 3^\circ\text{C}$  prior to testing.

### 4. Procedure

- (a) Secure both the top and bottom plates in the test machine.
- (b) Place the test specimen centrally onto the bottom test plate.
- (c) Bring the top plate down until it just makes contact with the specimen.
- (d) Zero the force and extension readings. See Note (c).
- (e) Commence loading the specimen at a rate of  $11 \pm 2 \text{ mm/min}$  until a preload of 45N (Vertical) or 450N (Horizontal) is reached.
- (f) Re-zero the force and extension readings.
- (g) Continue loading the specimen at a rate of  $11 \pm 2 \text{ mm/min}$  taking readings at 4mm and 8mm.

- (h) Repeat for a new specimen.

## **5. Reporting**

- (a) Report the test date, tester's name, identifying coil/batch number, orientation and the force readings (kN) at 4 mm and 8 mm.
- (b) Report the method of conditioning.

## **6. Notes**

- (a) It is preferable to perform this testing with a computer interfaced machine which can automatically re-zero the force and extension and take the readings at 4 mm and 8mm without stopping the machine. Stopping the machine during testing can allow the specimen to relax and give lower values.
- (b) Any geo textile wrap must be removed prior to testing.
- (c) When testing in the vertical orientation the specimen may need to be held in position until the test is started.