



Transport
Roads & Maritime
Services

Test method T1522

Abrasion resistance of seamless knitted tubular filter fabric

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 T1522 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T1522

Abrasion resistance of seamless knitted tubular filter fabric

1. Scope

This test method sets out the procedure to evaluate the abrasion resistance of seamless tubular filter fabric which has been pre-treated in ultra-violet light.

2. Apparatus

- (a) A 500 mm long smooth round pipe with smooth ends, and with a diameter as follows:-
 - (i) 75 mm, if tubular filter fabric for use with 65 mm corrugated plastic subsoil pipe is to be tested
 - (ii) 115 mm, if tubular filter fabric for use with 100 mm corrugated plastic subsoil pipe is to be tested
 - (iii) 170-175 mm, if tubular filter fabric for use with 150 mm corrugated plastic subsoil pipe is to be tested
- (b) A block 127 x 127 mm and with a metal rod 135 mm long fitted into the face of the block with the smallest dimension. The total mass is to be 570 ± 10 g
- (c) A 127 x 127 mm sheet of 400 grade emery paper
- (d) Ultra-violet light emission equipment

3. Pre-Treatment

A 0.7 m sample length of filter fabric shall be exposed to ultra-violet light for two days as described generally in Test Method T1404.

4. Procedure

- (a) For each sample of tubular filter fabric to be tested, fit a fresh sheet of 400 grade emery paper to the 127 x 127 mm face of the block
- (b) Pull the filter fabric over the pipe, tie both ends with a string and attach a 5 kg weight to one end by a string of at least 600 mm length
- (c) Secure the pipe firmly to a horizontal surface hanging the 5 kg weight over the edge allowing free tensioning of the filter sock. Mark a guide line longitudinally at 65 mm from the top of the pipe. Balance the block on the pipe fitted with the filter fabric with the emery paper facing down. Pull the block along the top of the pipe in the longitudinal direction for a distance of 300 mm for a total of 10 strokes following the guide line with the block edge over the same portion of fabric. Hold the block by the handle taking care not to apply any additional force other than the self weight of the block to the fabric
- (d) Examine the cloth and record any holing, unravelling, deweaving or laddering that has occurred. Neglect any end effects
- (e) Place the block vertically at the back of the pipe and contact the filter fabric. Slowly pull the block over the circumference of the pipe through 90° for a total of 10 strokes in the same line. Care must be taken not to apply any additional force other than the self weight of the block to the fabric

Examine the fabric and record any holing, unravelling, deweaving or laddering that has occurred. Neglect any end effects

5. Reporting

Report any holding, unravelling, deweaving or laddering that have occurred.

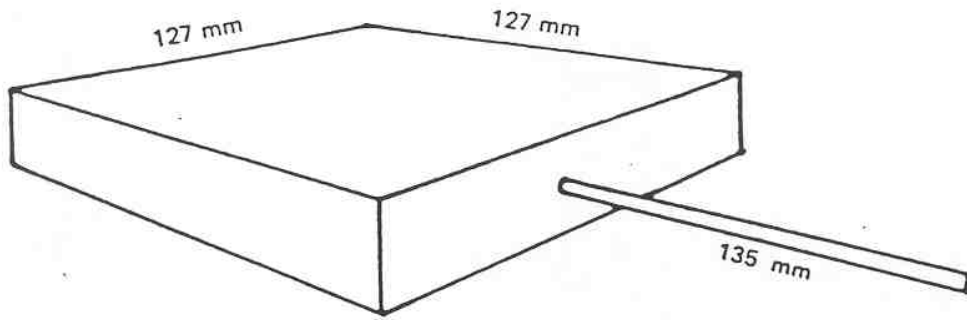


Figure 1: Diagram indicating equipment required for abrasion test

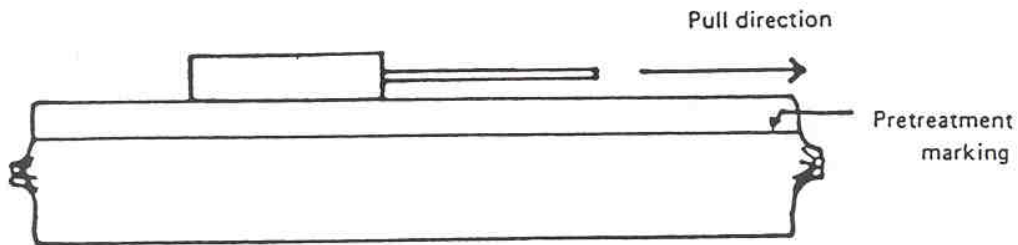


Figure 2: Testing tubular filter fabric in longitudinal direction

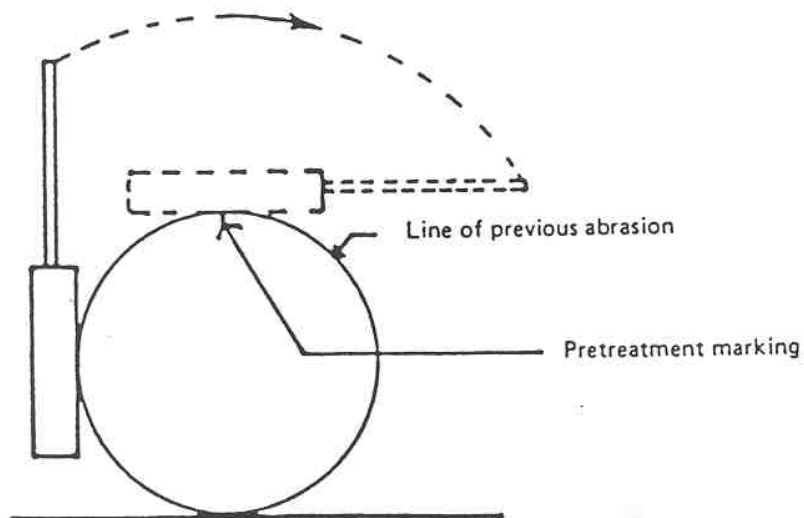


Figure 3: Testing tubular filter fabric in transverse direction