



Transport
Roads & Maritime
Services

Test method T1150

Compression and recovery of performed
joint filler

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 T1150 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T1150

Compression and recovery of performed joint filler

1. Scope

This method sets out the procedure for the compression of preformed joint filler and the determination of the percentage of recovery when the compression force has been removed. The test method is adapted from the test method set out in the American Society for Testing and Materials Designation D545-67.

2. Apparatus

- (a) A compression testing machine calibrated in accordance with the British Standard 1610 and maintained to Grade A Standard.
- (b) A machined metal plate 200 mm by 200 mm by 12.5 mm to support the sample and a machined metal plate approximately 115 mm by 115 mm by 12.5 mm with parallel faces through which to apply the compressive force.
- (c) A measuring device such as a dial gauge for measuring the compression of the test specimen.

3. Test Specimen

The test specimens consist of square, freshly cut samples 100 mm by 100 mm. In the case of self-expanding cork joint fillers only, the test specimens are cut from samples 120 mm by 120 mm subsequent to boiling in water for 1 hour and air drying for 24 hours.

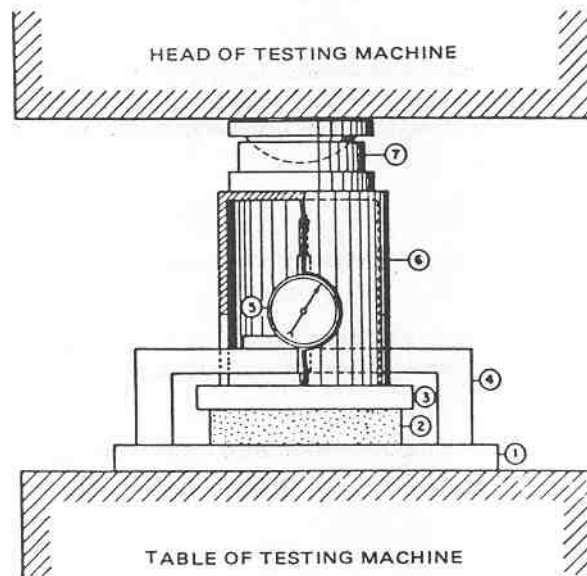
4. Procedure

- (a) Measure the average thickness of the expansion joint filler to the nearest 0.25 mm and record.
- (b) Place the test specimen on the flat metal plate 200 mm by 200 mm by 12.5 mm on the bed of the compression testing machine and centre a 115 mm by 115 mm metal plate on the top surface of the specimen.
- (c) Support the dial gauge or other suitable measuring device above the centre of the specimen and apply a force through a suitable load transfer device as shown in Fig. 1.
- (d) Apply a force without shock so that the specimen is compressed at a rate of 1.3 mm per minute and record the force at which the compression is 50 per cent of the original measured thickness of the specimen.
- (e) Give the test specimen three applications of force sufficient to compress it to 50 per cent of its thickness before test. After the first and second applications release the force immediately and permit the specimen to recover 30 minutes before the load is reapplied.
- (f) After the third application release the load immediately and permit the specimen to recover for 24 hours. During each recovery period remove all load from the surface of the specimen.
- (g) Measure the recovered thickness of the specimen.

5. Calculation and Reporting

Calculate the pressure required to compress the specimen to 50 per cent of its original thickness and report in MPa.

Calculate the recovered thickness as a percentage of the original specimen thickness and report as percentage recovery.



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| 1 – Flat Metal Plate 200 mm by 200 mm by 12.5 mm | 5 – Measuring Device |
| 2 – Specimen | 6 – Hollow Cylinder |
| 3 – Metal Plate 15 mm by 115 mm by 12.5 mm | 7 – Spherical Bearing Block |
| 4 – U-Shape Bridge | |

FIG. 1 Typical Mounting of the Specimen for Compression and Recovery Test