

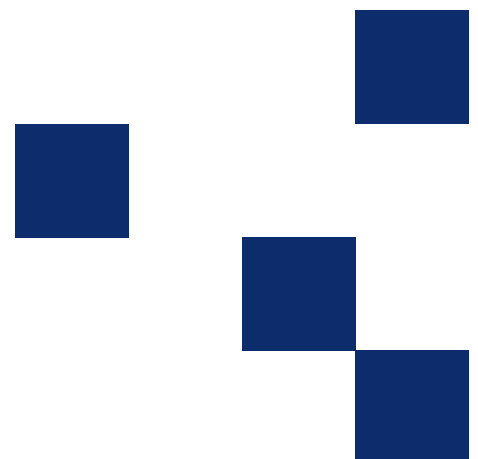


Transport
Roads & Maritime
Services

Test method T198

Proof rolling test

AUGUST 2013



Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		New Issue – Phil Walter	G. Donald	Feb 2005
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	October 2012
Ed 2 / Rev 1	2	Testing officer changed to Principal's nominated representative.	G Vorobieff	August 2013
	3	Changes to equipment that can be used for the test method.		
	4 & 5	Changes to Testing officer & equipment.		

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

The most recent revision to Test method T198 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

The static smooth steel drum roller has been removed from this test method as it may not identify localised soft areas as the rigid drum could bridge these areas.

The 'Testing Officer' has been replaced by the 'Principal's nominated representative' and this person may include the surveillance officer, laboratory technician or a geotechnical science officer.

The timing of the proof rolling test is specified in RMS R44 specification and not in the Test Method.

Test method T198

Proof rolling test

1. Scope

This test method sets out a procedure for assessing the stiffness and uniformity of compaction of a road formation during construction, by observing the surface deformation of a layer under a moving heavy roller.

2. Definition

Proof rolling is a subjectively assessed deformation test that must be conducted by a Principal's nominated representative experienced in proof rolling. The Principal's nominated representative must judge whether the transient surface deformation under the equipment is perceptible or not. Perceptible deformation may be visible permanent deformation or elastic (springing or resilient) deformation.

3. Equipment

(a) The proof roller can be either:

- a pneumatic-tyred static roller, not less than 4.5 tonnes per tyre and 600 kPa tyre pressure or
- a 10,000 L water tanker^A with internal baffles to minimise sloshing with a minimum 600 kPa tyre pressure .

(b) Tyre pressure gauge

NOTES:

A. The water tank must contain at least 10,000 litres of water during its use. The water may be town or recycled water.

B. Other equipment with at least the same rear axle loading as the water tanker, such as the Benkelman beam truck, conforming to the requirements of T160, may be used if approved by the Principal.

4. Preparation

The layer to be tested must be compacted in accordance with the relevant construction specification. The surface must be level, homogeneous, with no large protruding objects or significant surface depressions, and free from loose material.

The contractor must submit a proof rolling plan to the Principal's nominated representative, outlining the rolling paths and the location of lots.

Testing must be carried out immediately following completion of compaction. If testing is delayed by more than 12 hours, the surface layer must be watered and given a minimum of three passes with the roller prior to the commencement of proof rolling.

5. Procedure

- (a) Test the layer by operating the equipment at a speed in the range 3-10 km/h, as determined by and in the presence of the Principal's nominated representative. The rolling pattern must cover the area or lot to be tested, with successive passes of the equipment offset laterally by 40 to 50%
- (b) When standing beside the equipment, the Principal's nominated representative, must assess the surface deformation under the roller as perceptible or not perceptible at specific locations, and as uniform or non-uniform over the area of the lot.

6. Reporting

- (a) Equipment used indicating the type, model, gross mass and tyre pressures.
- (b) The time of proof rolling after final compaction, and whether the surface was wetted prior to proof rolling.

- (c) Rolling pattern indicating percentage of overlap on each path.
- (d) Report the surface deformation as:
 - Perceptible or non-perceptible for specific locations
 - Uniform or non-uniform over the area of the lot.