

AUSTROADS TEST METHOD AG:AM/T013

PAVEMENT SURFACE TEXTURE MEASUREMENT WITH A LASER PROFILOMETER

COMMENTARY

1 SCOPE

It is important to note that the test method has been prepared for the testing of pavements at the network level. Care should be taken when applying the test method at the project level.

The macro-texture of a pavement surface may be recorded as either Mean Profile Depth (MPD) or Sensor Measured Texture Depth (SMTD) depending on the equipment and analysis method used. Both parameters are covered by the test method.

2 REFERENCED DOCUMENTS

No comment.

3 DEFINITIONS

No comment.

4 EQUIPMENT

No comment.

5 CALIBRATION AND VALIDATION

5.1 Equipment Calibration

5.1.1 *Distance Transducer*

No comment.

5.1.2 *Laser Displacement Transducers*

No comment.

5.2 System Validation

Whilst equipment calibration and validation issues are of direct relevance to the survey crew operating the vehicle in the field, it has been presumed that the crew may not be as familiar with contract documentation, including the specification, as they are with the data collection test method. Accordingly, a default list of calibration and validation requirements that must be met in the absence of any form of instruction or specification is included in the test method.

The validation test method AG:AM/T014 contains a procedure that compares the surface texture results obtained from the test profilometer system to the results obtained from an independent reference device. The alternative test method, AG:AM/T015, compares the results obtained from the test profilometer to the results obtained from another reference profilometer system.

The test method permits the use of either validation method for the validation of profilometers. If a client wishes to specifically exclude the use of one of the methods, then this should be specified in associated contract documentation.

6 PROCEDURE

6.1 Pre-test Set-up

No comment.

6.2 Operational Validation Procedure

No comment.

6.3 Profile Survey

When surveying in an urban environment, maintaining an appropriate survey speed and avoiding stopping whilst surveying can be difficult. Therefore, appropriate measures, such as arranging for 'green light' survey runs, should be a priority to minimise the likelihood of the vehicle stopping or falling below the minimum survey speed.

6.4 Factors Affecting the Test

No comment.

7 CALCULATIONS

7.1 Mean Profile Depth (MPD)

No comment.

7.2 Sensor Measured Texture Depth (SMTD)

- (a) In Australia, laser systems measuring SMTD have traditionally used a sample interval of 5-7 mm.
- (b) No comment.
- (c) No comment.
- (d) No comment.

7.3 Equivalent Sand Patch Texture Depth (SPTD)

No comment.

7.4 Effect of Speed

No comment.

8 REPORTING

No comment.

ANNEX 1 – LASER SAFETY

No comment.

AMENDMENT RECORD

Amendment No.	Sections amended	Action ⁽¹⁾	Date
1 (Initial release)	All (Michael Moffatt, ARRB)	New	26 March 2007
2 (Revised release)	All (Richard Wix, ARRB, project AT1484)	Substitution	2 March 2011

¹ Key:

Format	change in format
Substitution	old section removed and replaced with new section
New	insertion of new section
Removed	old section removed

This commentary is relevant to the 2 March 2011 release of Austroads Test Method AG:AM/T013.