

Technical Specification

**Transport and Main Roads Specifications
MRTS112 Bituminous Surface Retexturing**

November 2025

(ATS 3480 Bituminous Surface Retexturing, Ed 1.0 April 2020)

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Feedback

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About this document

The document adopts and modifies Austroads Technical Specification ATS 3480 *Bituminous Surface Retexturing* as part of national harmonisation. It sets out the requirements for improving the surface texture of bituminous surfacing by removing excess binder ('retexturing').

How to use this document

This document includes the national guidance and Queensland-specific advice while following the structure established in Austroads Technical Specifications.

Queensland-specific advice includes practices which vary from national practice because of local environmental conditions (such as geography, soil types, climate); different funding practices; local research; local legislation requirements; and to expand instruction on particular issues.

This document:

- sets out how the Austroads Technical Specification ATS 3480 *Bituminous Surface Retexturing* applies in Queensland
- has precedence over the Austroads Technical Specification ATS 3480 *Bituminous Surface Retexturing* when applied in Queensland
- has the same clause numbering and headings as the Austroads Technical Specification ATS 3480 *Bituminous Surface Retexturing*.

Transport and Main Roads provides an ancillary document which outlines adopted national and modified Queensland-specific content with tracked changes. To access a copy click on the below link: [Ancillary documents for harmonised Technical Specifications](#).

Terminology

The following general amended definitions apply when reading this document.

Reference to...	Means
Shall	Denotes mandatory requirements
Must	Denotes mandatory requirements
Principal	The State of Queensland acting through the Department of Transport and Main Roads.

Reference to...	Means
Administrator	The Administrator will be responsible for the overall administration of this Contract.

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1 Scope

- 1.1 This Technical Specification sets out the requirements for the following treatments to the surface of bituminous pavements:
- a) improving the surface texture of bituminous surfacings by removing excess binder ('retexturing').
- 1.2 This Technical Specification shall be read in conjunction with MRTS01 *Introduction to Technical Specifications*, MRTS50 *Specific Quality System Requirements* and other Technical Specifications as appropriate.
- 1.3 This Technical Specification forms part of the Transport and Main Roads Specifications Manual.

2 Definitions

- 2.1 The definitions in AP-C87-15 apply to this Technical Specification.
- 2.2 Retexturing (water blasting) is the removal of excess binder to improve the texture of the road surface by the use of high pressure water.

3 Referenced documents

- 3.1 The requirements of the referenced documents listed in Table 3.1 below apply to this Technical Specification. Where there are inconsistencies between this Technical Specification and the referenced documents, the requirements in this Technical Specification shall take precedence.

Table 3.1 – Reference documents

Reference	Title
Austrroads	
AP-C87-15	<i>Austrroads Glossary of Terms</i>
AGPT-T250-08	<i>Modified Surface Texture Depth (Pestle Method)</i>
AGPT-T254-20	<i>Stripping of Aggregate from Spayed Seals</i>
AGAM-T013-16	<i>Pavement Surface Texture Measurement with a Laser Profilometer</i>
Transport and Main Roads Technical Documents	
MRTS01	<i>Introduction Technical Specifications</i>
MRTS50	<i>Specific Quality System Requirements</i>

Reference	Title
MRTS51	<i>Environmental Management</i>

4 Quality system requirements

4.1 The Contractor must prepare and implement a Quality Plan that includes:

Hold Point 1 Record

- a) details of all equipment and plant to be used
- b) procedures / work instructions
- c) names of key personnel and their site duties and contact details
- d) details of the proposed waste disposal method for both liquid and solid waste, including details of licensed disposal sites
- e) Inspection and Test Plans (ITP) that address the requirements of this Technical Specification, and
- f) a Safety Plan and applicable Safe Working Method Statements.

HOLD POINT 1	
Process Held	Submission of Quality Plan.
Submission Details	The Quality Plan must be provided at least 5 working days prior to the commencement of the surface retexturing work.

5 Plant and materials

5.1 The Contractor is responsible for the storage of all plant, equipment and materials.

5.2 The retexturing machine must:

- a) be a self-contained system which uses high pressure water jets to remove the excess binder and unwanted materials from the road surface
- b) incorporate a suction system which is capable of removing all the dislodged particles of binder or other materials being removed, and sprayed water
- c) be capable of carrying both the waterblasting equipment and a full load of waste material
- d) have a storage facility to house the waste material until disposal
- e) be capable of adjusting the water pressure to achieve the required degree of binder removal without damaging the seal

- f) be designed to minimise the need for personnel to undertake on-ground duties when the machine is operation, and
- g) incorporate an emergency stop mechanism which can be easily accessed from outside the vehicle.

5.3 The Contractor must:

- a) supply all water required for the waterblasting
- b) where necessary, obtain permits and licences for water and pay any associated charges to the appropriate authority
- c) if water is not sourced from a reticulated water supply, maintain a record of the water drawn from other sources, and
- d) provide the Principal with all records demonstrating compliance with this clause.

Record

6 Trial retexturing treatment

6.1 If specified, or if directed by the Principal, the Contractor must undertake a trial of the retexturing treatment.

6.2 Each trial must:

- a) be undertaken on an area of at least 100 m² which has a surface that is representative of the sector being treated
- b) be undertaken using the equipment and processes proposed to be used for the remainder of the Works, and
- c) achieve all the criteria specified in this Technical Specification. **Hold Point 2**

Record

HOLD POINT 2	
Process Held	Commencement of retexturing trial.
Submission Details	Location, date, and time of trial sections to be submitted at least 3 working days prior to commencement of trial.

6.3 The Contractor must provide test results in accordance with Clause 7 and photographs of the tests being undertaken which demonstrate that the trial waterblasting complies with this Technical Specification. **Hold Point 3** **Record**

HOLD POINT 3	
Process Held	Commencement of retexturing treatment.
Submission Details	Evidence of a successful trial which demonstrates that the treatment will achieve the specified surface texture.

6.4 If the trial does not achieve the specified criteria, the Contractor must adjust / modify the equipment or methodology and repeat the trial until the specified surface texture is achieved.

6.5 Separate payment will not be made for trials of the treatment.

7 Testing and Conformance

General

7.1 A Lot is a homogenous area not exceeding 400 m² which is treated in a uniform manner. Except at intersections or if specified otherwise, a Lot is limited to an individual lane.

7.2 If specified in the Contract, payment will be made at a reduced rate for 'Conditionally Conforming' Lots (i.e, work which is marginally outside the criteria specified for Conforming work).

7.3 Some areas may be specified as being exempt from testing (such as gritted areas, asphalt surfaces and distressed areas). In these areas, conformance will be determined by a visual assessment of the Works.

Texture Depth

7.4 Texture Depth will be determined by a continuous visual assessment of the process and testing carried out in accordance with Table 7.4.

Table 7.4 – Test frequency

Property	Test procedure	Test frequency
Sensor Measured Texture Depth	AGAM-T013-16	Continuous; reported as mean value in each wheel path per Lot
Surface Texture – Laser	Q715	3 tests per Lot ⁽²⁾
Surface Texture Depth	AGPT-T250-08 ⁽¹⁾	3 tests per Lot ⁽²⁾

Notes:

⁽¹⁾ An alternative test may be specified in the Contract.

⁽²⁾ Where a lane is treated, one test must be conducted at each of the following locations:

- a) the left wheel path
- b) the right wheel path, and
- c) the mid-point of the left wheel path and the right wheel path.

7.5 Unless alternative values for Conforming and/or Conditionally Conforming Texture Depth are specified elsewhere in the Contract, the values specified in Table 7.5 will be used to determine whether the Works are Conforming, Conditionally Conforming or Non-conforming.

Table 7.5 – Classification of Texture Depth

Mean Texture Depth (mm)			Seal Treatment
Non-conforming	Conforming	Non-conforming	
< 1.0	1.0 to 1.7	> 1.7	Size 7
< 1.5	1.5 to 2.5	> 2.5	Size 10
< 1.6	1.6 to 3.8	> 3.8	Size 14
< 1.3	1.3 to 2	> 2.4	Size 14/7 or 14/10
< 1.5	0.7 to 1.5	> 1.5	Size 16/7 or 16/10
< 0.7	0.7 to 1.5	> 1.5	SMA10
< 1.1	1.1 to 2.0	> 2.0	SMA14

Aggregate retention

7.6 The degree of aggregate retention is visually assessed. In marginal cases, the Principal may direct that nominated areas be tested in accordance with AGPT-T254-20 (or an equivalent test method for aggregate stripping) for assessment in accordance with Table 7.6. Any such testing is at the Contractor's expense.

Table 7.6 – Aggregate Stripping

Degree of Aggregate Stripping ⁽¹⁾	Classification
0 to 2	Conforming
Greater than 3	Non-conforming

Note:

⁽¹⁾ Alternative values for conforming and / or non-conforming may be specified in the Contract.

Non-conforming Work

- 7.7 The retexturing treatment must not result in the road surface being damaged, which includes any of the following:
- a) excessive removal of the binder
 - b) stripping of the sealing aggregate
 - c) removal of the seal and underlying pavement layers, and
 - d) scouring damage to underlying pavement layers or other base materials.
- 7.8 The Contractor must rectify any damaged pavement or any area with a texture depth or aggregate stripping outside the limits specified in Table 7.5 and Table 7.6 respectively (including at the overlap of treatment runs).
- 7.9 The cost of reworking, retreating or repairing any nonconforming work and all associated activities shall be borne by the Contractor at the Contractor’s cost.
- 7.10 Rectification must be carried out within 5 working days unless resealing is required, in which case the resealing must be carried out as soon as practicable. **Hold Point 4 Record**

HOLD POINT 4	
Process Held	Rectification of defective work.
Submission Details	Proposed method of rectifying the defective work.

8 Waste management

- 8.1 The Contractor owns all waste material generated by the treatment and must dispose of the waste in accordance with any applicable environmental legislation.

- 8.2 Liquid waste must be disposed of at a treatment plant registered by the applicable environmental authority to accept the type of waste generated.
- 8.3 Solid waste must be disposed of at a waste facility licensed to accept the type of waste material generated.
- 8.4 Subject to satisfying all applicable environmental requirements, the solid waste may remain at the site for a period not exceeding 7 days prior to disposal.

The Contractor must provide records / certification proving that the waste has been disposed of at a waste management facility in accordance with applicable environmental legislation. The records / certification must include date, quantity and nature of the disposed material and contact details of the facility. **Record**

- 8.6 Contractor must manage waste in accordance with MRTS51 *Environmental Management*.

9 Records

- 9.1 The Contractor must provide a Lot Package Report, which includes the following details, within 7 days of completion of the Lot: **Record**
 - a) details of the location where the work is undertaken (such as road name, chainage, lane / carriageway identification)
 - b) date and start and finish times
 - c) area of pavement treated in square metres
 - d) details of traffic control in place
 - e) any non-conformances / defective work
 - f) location and details of testing of the Lot
 - g) details of the rectification of any non-conforming / defective work, and
 - h) records of the waste disposal in accordance with Clause 8.5.
- 9.2 The Contractor must ensure that where a representative of the Principal is on site during waterblasting, that representative is provided with a copy of the Job Completion Report and given the opportunity to acknowledge receipt of the report.
- 9.3 The Principal may provide a proforma for the Lot Package Report.

Appendix A: Summary of Hold Points, Witness Points, Milestones and Records

General requirements for Hold Points, Witness Points, Milestones and Records are specified in Clause 5.2 of MRTS01 *Introduction to Technical Specifications*.

The Hold Points, Witness Points, Milestones and Records that the Contractor must submit to the Principal to demonstrate compliance with this Technical Specification are summarised in Table A. There are no Witness Points or Milestones defined.

Table A – Hold Points, Witness Points, Milestones and Records

Clause	Hold Point	Witness Point	Milestone	Record
4.1	1. Commencement of retexturing treatment.			Quality Plan
5.3				Any permits, licences and records required for the supply of water
6.2	2. Commencement of retexturing trial			Location, date, time of trial sections to be submitted at least 3 working days prior to commencement of trial
6.3	3. Commencement of retexturing treatment			Test results showing that the trial waterblasting complies with this Technical Specification
7.10	4. Rectification of defective work			Proposed method of rectifying the defective work
8.5				Record of disposal at waste facility
9.1				Lot Package Report

