

Policy 11: Land Development Guidelines

SS9

Specification for Spray Sealing

Table of Contents

1.0	General.....	2
2.0	Acts, Regulations and Local Laws	2
3.0	Seal Design	2
4.0	Materials.....	2
5.0	Tolerances.....	2
6.0	Provision for Traffic	3
7.0	Surface Preparation	3
8.0	Sealing	3
9.0	Stoppage of Work.....	3
10.0	Measurement and Payment	3
11.0	Standards and Codes	3

1.0 General

- 1.1 Spray Sealing is to be hot-sprayed bitumen unless otherwise approved by the Superintendent. The bitumen surfacing shall be carried out by a competent contractor with plant that has been calibrated and certified within twelve months of the work being performed.

2.0 Acts, Regulations and Local Laws

- 2.1 The Contractor shall comply with all Acts, Local Laws and Regulations having jurisdiction over work under the Contract and shall be fully responsible for any breaches thereof.

3.0 Seal Design

- 3.1 All spray sealing shall be designed in accordance with the current **Austrroads Design of Sprayed Seals** document.
- 3.2 A copy of the seal design and the record of bitumen and aggregate application rates shall be submitted to the Superintendent for inclusion with the as constructed documentation.

4.0 Materials

4.1 Residual Bitumen

Residual bitumen shall conform with **AS2008**.

4.2 Aggregate

All aggregate shall be pre-coated. Aggregate shall be of such a nature that when thoroughly coated with bituminous material proposed for the work, the coating will not slough off upon contact with water. Where crushed aggregate is specified the screenings shall have at least 85% by weight of particles with at least one fractured face.

When tested for the Aggregate Crushing Value, in accordance with **AS1141.21** the aggregate shall have a crushing value not exceeding 20% for the whole sample.

The flakiness index of the aggregate when determined in accordance with **AS1141.15** shall fall within the limits specified for the appropriate nominal size in **Table 1**.

4.3 Sampling and Testing

The Superintendent from time to time may take samples from the Contractor's deliveries to determine whether the requirements of this specification are being complied with.

If samples of material tested fail to comply with the requirements of this specification, the particular consignment represented by the samples may be rejected, and if requested by the Superintendent such consignment shall be removed by the Contractor at his own expense.

5.0 Tolerances

Bitumen and Aggregate Application rates shall not vary by more than $\pm 5\%$ by volume of the design application rates.

Table 1

Nominal Size of Aggregate	Percentage Passing AS. Metric Sieves									Maximum Flakiness Index %
	26.5mm	19mm	16mm	13.2mm	9.5mm	6.7mm	4.75mm	2.36mm	1.18mm	
20mm	100		85-100		0-20	0-5			0-0.5	
16mm			100	85-100	0-60	0-15			0-0.5	
14mm			100		85-100	0-30	0-5		0-0.5	
10mm					100	85-100	0-30	0-8	0-1.0	
7mm						100	85-100	0-30	0-10	0-5
5mm							100	85-100	0-30	0-5

6.0 Provision for Traffic

- 6.1 All necessary signs, barriers, etc. required for all control and protection of traffic shall be provided, erected and maintained by the Contractor in accordance with the **Manual of Uniform Traffic Control Devices (Queensland)**.

The Contractor shall take special care to ensure that vehicles and pedestrians are not sprayed with bitumen and that entry to areas treated with uncovered bitumen is prevented.

7.0 Surface Preparation

Surfaces to be sealed shall be free of surface dust and in the case of an initial surface the Superintendent shall have approved the pavement works under **Specification SS7**.

8.0 Sealing

Only the prepared road surface shall be sealed. The Contractor shall take all measures necessary to prevent other surfaces (including kerb and channel) from being sprayed.

All joints in the bitumen shall be either parallel or at right angles to the road centreline. Application of the seal is to be in accordance with sound engineering practice.

9.0 Stoppage of Work

The Superintendent may suspend all work if the Superintendent considers the work is not being carried out in accordance with this specification.

10.0 Measurement and Payment

- 10.1 Unless otherwise specified, payment shall be made in accordance with the items set out in the priced Bill of Quantities and shall include the cost of supply, transport, placement, rolling and testing of all materials including all plant, equipment, labour and expenses necessary for the successful completion of the Works.

11.0 Standards and Codes

- 11.1 This specification makes reference to the following Australian Standards and Tests:

AS1141 Methods for Sampling and Testing Aggregates

AS2008 Residual Bitumen for Pavements

- 11.2 In this specification Australian Standards are referred to only by their allocated AS number. The latest available edition at the date of close of Tenders shall be deemed to apply.