

TRANSPORT FOR NSW (TfNSW)

QA SPECIFICATION 3259

BITUMEN ADHESION AGENT (FOR BITUMEN)

NOTICE

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REVISION REGISTER

Ed/Rev Number	Clause Number	Description of Revision	Authorised By	Date
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Ed 7	1 2 2 & 3 4.3 & 4.5 5 6 7 Annexure 3259/1 Appendix A	Title changed Delete reference to C320 Update nomenclature ISO 9002 replaced by ISO 9001 New Update nomenclature Include "Use by" date requirement Additional information required from the Supplier New annexure - Schedule of Identified Records New	GM, RNIC	31.08.01
Ed 8	2 & 3	Reference to ISO 9001 replaced by ISO 9002	GM, RNIC	23.10.01
Ed 9/Rev 0	"Notice" Spec Ref No Foreword Global	RTA PO Box and Fax numbers updated Revision No added Foreword, incorporating copyright clause, added. Text revised to direct imperative style. "shall" replaced by "must". Clauses rearranged and renumbered. Reformatting and minor editing to clarify intent.	GM, IC	04.08.09

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Ed 9/Rev 0 (cont'd)	2.4 5.2, Annex M	Definitions of “you” and “your” added. References updated.		
Ed 9/Rev 1	Global	References to “Roads and Maritime Services” or “RMS” changed to “Transport for NSW” or “TfNSW” respectively.	DCS	22.06.20



BITUMEN ADHESION AGENT (FOR BITUMEN)

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IC-QA-3259

VERSION FOR: DATE:

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FOREWORD

TfNSW COPYRIGHT AND USE OF THIS DOCUMENT

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When this document forms part of a contract

This document should be read with all the documents forming the Contract.

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This copy is not a controlled document. Observe the Notice that appears on the first page of the copy controlled by TfNSW. A full copy of the latest version of the document is available on the TfNSW Internet website: <http://www.rms.nsw.gov.au/business-industry/partners-suppliers/specifications/index.html>

REVISIONS TO PREVIOUS VERSION

This document has been revised from Specification TfNSW 3259 Edition 9 Revision 0.

All revisions to the previous version (other than minor editorial and project specific changes) are indicated by a vertical line in the margin as shown here, except when it is a new edition and the text has been extensively rewritten.

PROJECT SPECIFIC CHANGES

Any project specific changes are indicated in the following manner:

- (a) Text which is additional to the base document and which is included in the Specification is shown in bold italics e.g. ***Additional Text***.
- (b) Text which has been deleted from the base document and which is not included in the Specification is shown struck out e.g. ~~Deleted Text~~.

TfNSW QA SPECIFICATION 3259

BITUMEN ADHESION AGENT (FOR BITUMEN)

1 SCOPE

This Specification sets out the requirements for adhesion agents compatible with bitumen Class 170, for use both in sprayed sealing and asphalt.

2 STRUCTURE OF THE SPECIFICATION

This Specification includes a series of annexures that detail additional requirements.

2.1 (NOT USED)

2.2 SCHEDULE OF IDENTIFIED RECORDS

The records listed in Annexure 3259/C are **Identified Records** for the purposes of Specification TfNSW Q Annexure Q/E.

2.3 (NOT USED)

2.4 REFERENCED DOCUMENTS AND DEFINITIONS

Unless specified otherwise, the applicable issue of a referenced document, other than a TfNSW Specification, must be the issue current at the date one week before the closing date for tenders, or where no issue is current at that date, the most recent issue.

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure 3259/M.

The term “the Supplier” means the supplier of the product covered by the scope of this Specification.

3 (NOT USED)

4 SUPPLIER’S QUALITY MANAGEMENT SYSTEM

The Supplier must establish and maintain a Quality Management System complying with AS/NZS ISO 9001 as a means of ensuring that the product conforms to this Specification.

Provide evidence verifying compliance with this Clause.

5 MATERIAL REQUIREMENTS

5.1 SAFETY

The material must not contain any components which, when handled in accordance with approved work practices (such as those contained in “TfNSW Sprayed Sealing Guide” and “Austroads Guide to Pavement Technology Part 4B”), will cause the worker to be exposed to harmful substances above the legal limit concentration.

5.2 HOMOGENEITY

The material must be homogeneous. Liquid adhesion agents, after agitation and when ready for use, must remain free from skinning, precipitation or any other deterioration for 72 hours (Test Method TfNSW T590).

5.3 CONCENTRATION

The percentages of adhesion agent quoted in Clause 5.4 and “TfNSW Sprayed Sealing Guide” are based on a 40/60 mixture of adhesion agent concentrate/diesel fuel oil.

Where adhesion agent concentrate is to be used alone, adjust the actual percentage of product used accordingly.

5.4 RESISTANCE TO STRIPPING

Blend the adhesion agent with Class 170 bitumen conforming to AS 2008 at a concentration of 0.5% v/v.

When tested in accordance with Test Method TfNSW T230, with Class 170 bitumen and each of the four aggregates: Microgranite (ex Mugga 1 Quarry, Canberra), Basalt (ex Peats Ridge), Quartzite (ex Marrangaroo, Lithgow) and Nepean River Gravel (ex Emu Plains), under the following two surface conditions:

- (a) dusty;
- (b) saturated surface wet,

the percentage stripped must not exceed 10% with any combination of aggregate and surface condition listed above.

5.5 CONCENTRATION OF ACTIVE COMPONENT

Provide details of a reproducible laboratory test which will allow the concentration of the active component of the material to be determined. Specify an average value for the concentration of the active component and an acceptable minimum value above which the material is considered to be effective.

6 PRODUCT CERTIFICATION

Provide a certificate of compliance verifying that the adhesion agent complies with Clauses 5.2 and 5.4 of this Specification, together with test results reported on NATA endorsed test documents.

The certification must relate only to the formulation of the product on which the tests were carried out. New certification will be required every five (5) years or whenever a change in product formulation is made.

7 IDENTIFICATION OF CONTAINERS

Mark each container clearly and durably to show the following information:

- (a) name of Supplier;
- (b) trade name of the product (if applicable);
- (c) product reference number or identification number;
- (d) batch number or date of manufacture; and
- (e) "Use By" date.

Provide a copy of the certificate of compliance and Safety Data Sheet with each delivery.

8 INFORMATION TO BE PROVIDED BY SUPPLIER

Provide a Materials Data Sheet which include the following information:

- (a) whether the adhesion agent is in the form of a solid, liquid or paste.
- (b) chemical and physical properties.
- (c) information as to the effectiveness of the adhesion agent when it is subjected to prolonged heating. This must take the form of a table or graph of values depicting the % loss of effective adhesion agent (at temperatures of 160°C and 180°C) as a function of time, expressed in hours. Also state the maximum period of prolonged heating, in bitumen at temperatures of 160°C and 180°C, to which the adhesion agent may be subject without losing its effectiveness.
- (d) recommended method of handling and mixing.
- (e) recommended mixing time.

ANNEXURES 3259/A TO 3259/B – (NOT USED)

ANNEXURE 3259/C – SCHEDULE OF IDENTIFIED RECORDS

Refer to Clause 2.2.

The records listed below are Identified Records for the purposes of TfNSW Q Annexure Q/E.

Clause	Description of Identified Records
5.5	Average and minimum value of concentration of active component and details of related tests
6	Certificate of compliance verifying that the adhesion agent complies with Clauses 5.2 and 5.4 together with test results reported on NATA endorsed test documents
7	Certificate of compliance and Safety Data Sheet to be supplied with each delivery
8	Materials Data Sheet

ANNEXURES 3259/D TO 3259/L– (NOT USED)

ANNEXURE 3259/M – REFERENCED DOCUMENTS

Refer to Clause 2.4.

TfNSW Specification

TfNSW Q Quality Management System

TfNSW Test Methods

TfNSW T230 Resistance to Stripping of Cover Aggregates and Binders.

TfNSW T590 Homogeneity of Liquid Precoats and Adhesion Agents.

TfNSW Guides

TP-GDL-001 TfNSW Sprayed Sealing Guide

Australian Standards

AS 2008 Residual Bitumen for Pavements.

AS/NZS ISO 9001 Quality management systems – Requirements

Austrroads Documents

AGPT04B/07 Guide to Pavement Technology – Part 4B: Asphalt

APPENDIX A

The requirements of this Appendix will apply where the order on the Supplier is placed directly by the Transport for NSW (TfNSW).

A1 MEASUREMENT

For adhesion agent supplied in drums, measurement for the purpose of payment will be based on litres. For bulk delivery, measurement for the purpose of payment will be by net mass as measured on a certified weighbridge.

A2 PAYMENT

Payment for adhesion agent conforming to the Specification will be made on the basis of the quantities measured in accordance with Clause A1.

In the case of adhesion agent not conforming to the Specification, the cost of loading, freight and other charges incurred by the TfNSW prior to or subsequent to the material being rejected will be a charge against the Supplier.

The Supplier must provide the TfNSW with a certificate of compliance verifying that the adhesion agent complies with the specification before payment is made.