

# TRANSPORT FOR NSW (TfNSW)

## SPECIFICATION D&C 3261

### CUTBACK BITUMEN

#### NOTICE

This document is a Transport for NSW D&C Specification. It has been developed for use with Design & Construct roadworks and bridgeworks contracts let by Transport for NSW. It is not suitable for any other purpose and must not be used for any other purpose or in any other context.

Copyright in this document belongs to Transport for NSW.

#### REVISION REGISTER

<b>Ed/Rev Number</b>	<b>Clause Number</b>	<b>Description of Revision</b>	<b>Authorised By</b>	<b>Date</b>
Ed 1/Rev 0		First issue	GM, IC W Stalder	01.07.11
Ed 1/Rev 1	Global	References to “Roads and Maritime Services” or “RMS” changed to “Transport for NSW” or “TfNSW” respectively.  References to “RMS Representative” changed to “Principal”.	DCS	22.06.20





Transport  
for NSW

SPECIFICATION D&C 3261

---

# CUTBACK BITUMEN

Copyright – Transport for NSW  
IC-DC-3261

VERSION FOR: DATE:
-----------------------



## CONTENTS

CLAUSE	PAGE
FOREWORD .....	ii
TfNSW Copyright and Use of this Document.....	ii
Base Specification .....	ii
1    SCOPE .....	1
2    STRUCTURE OF THE SPECIFICATION.....	1
2.1    (Not Used) .....	1
2.2    Schedule of Identified Records .....	1
2.3    (Not Used) .....	1
2.4    Referenced Documents and Definitions.....	1
3    (NOT USED).....	1
4    SUPPLIER’S QUALITY MANAGEMENT SYSTEM.....	1
5    MATERIAL REQUIREMENTS.....	2
5.1    Constituents .....	2
5.2    Cutback Bitumen .....	2
6    PRODUCT CERTIFICATION.....	2
7    DELIVERY .....	3
7.1    Containers.....	3
7.2    Delivery Procedures.....	3
7.3    Handling Temperatures.....	3
7.4    Details of Consignment.....	3
8    SAMPLING.....	4
ANNEXURES 3261/A TO 3261/B – (NOT USED).....	5
ANNEXURE 3261/C – SCHEDULE OF IDENTIFIED RECORDS.....	5
ANNEXURES 3261/E TO 3261/L – (NOT USED).....	5
ANNEXURE 3261/M – REFERENCED DOCUMENTS.....	5
LAST PAGE OF THIS DOCUMENT IS .....	5

## **FOREWORD**

### **TfNSW COPYRIGHT AND USE OF THIS DOCUMENT**

Copyright in this document belongs to Transport for NSW.

#### **When this document forms part of a deed**

This document should be read with all the documents forming the Project Deed.

#### **When this document does not form part of a deed**

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>

### **BASE SPECIFICATION**

This document is based on Specification TfNSW 3261 Edition 9 Revision 1.

# **TfNSW SPECIFICATION D&C 3261**

## **CUTBACK BITUMEN**

### **1 SCOPE**

This Specification sets out the requirements for the supply of cutback bitumen for sprayed bituminous surfacing.

### **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 3261/C are **Identified Records** for the purposes of Specification TfNSW D&C Q6 Annexure Q/E.

#### **2.3 (NOT USED)**

#### **2.4 REFERENCED DOCUMENTS AND DEFINITIONS**

Standards, specifications and test methods are referred to in abbreviated form (e.g. AS 2350). For convenience, the full titles are given in Annexure 3261/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 CONSTITUENTS

The bitumen and cutter used to manufacture the cutback bitumen must comply with AS 2008 and AS 3568 respectively.

For the bitumen, obtain test results on NATA endorsed test documents for the refinery batch from which the bitumen was taken, with sampling no earlier than 7 days prior to delivery of the cutback bitumen.

For the cutter, obtain a certificate of compliance relating to NATA endorsed test results which are less than 3 years old for the formulation used.

### 5.2 CUTBACK BITUMEN

Grade cutback bitumen by its viscosity at 60°C according to any of the methods allowed by AS 2157. However, the viscosity limits shown in Table 3261.1 apply in lieu of those in AS 2157.

Cutback bitumen must comply with the properties for its grade, set down in AS 2157, except for viscosity.

**Table 3261.1 - Properties of Cutback Bitumen**

Classification	Grade Designation	Viscosity at 60°C Pa.s		Delivery Temperature Range °C	Approximate % Cutter by Volume
		Min	Max		
Priming Classes	RTAMC 00	0.008	0.019	15 – 35	56
	RTAMC 0	0.020	0.054	40 – 55	44
	RTAMC 1	0.055	0.15	65 – 80	34
Primer-sealing & Premix Classes	RTAMC 2	0.16	0.48	80 – 100	27
	RTAMC 3	0.49	1.4	100 – 115	21
	RTAMC 4	1.5	4.6	115 – 135	16
Sealing Classes	RTAMC 5	4.7	11.9	130 – 150	11
	RTAMC 6	12	32	145 – 160	7
	RTAMC 7	33	86	160 – 175	3

## 6 PRODUCT CERTIFICATION

Verify at the point of manufacture that every batch of the cutback bitumen complies with Clause 5.2.

Report the results of any tests, which the Supplier's Quality Management System demonstrates to be reliable indicators of compliance, on NATA endorsed test documents.



## **7 DELIVERY**

### **7.1 CONTAINERS**

All containers used to deliver the cutback bitumen must be in good condition.

### **7.2 DELIVERY PROCEDURES**

As part of the Quality Management System, implement delivery procedures which ensure that all containers are clean and free from any material (including volatile hydrocarbons) which could alter the properties of the cutback bitumen. The delivery procedures must include product auditing at the point of delivery to verify compliance with Clause 5.2.

If product auditing (whether internal or external) identifies a nonconforming product, take samples from each drummed batch for testing to verify compliance with Clause 5.2. The number of drums sampled must not be less than the cube root of the number of drums making up the batch. Report the test results on NATA endorsed test documents and submit them to the Principal within 14 days of delivery.

### **7.3 HANDLING TEMPERATURES**

When cutback bitumen is loaded at a refinery or supply depot, the temperature at loading must not be more than 15°C in excess of the upper limit of the delivery temperature in Table 3261.1 for that particular grade of cutback bitumen.

At the time of delivery, cutback bitumen delivered by road tanker, rail tanker or sprayer must be at a temperature within the range specified in Table 3261.1 for that particular grade of cutback bitumen.

### **7.4 DETAILS OF CONSIGNMENT**

Provide the following information with each delivery:

- (a) Manufacturer's name.
- (b) Batch number, or date of manufacture.
- (c) Relevant classification and grade designation.
- (d) Loading temperature.
- (e) Delivery temperature of cutback bitumen delivered by road tanker or sprayer.
- (f) Weighbridge tickets showing gross mass of the delivery, the mass of the empty vehicle or container and the net mass of cutback bitumen.
- (g) Certification that the delivery procedures in Clause 7.2 have been complied with for that delivery.
- (h) Documentary evidence that the bitumen and cutter used to manufacture the cutback bitumen comply with AS 2008 and AS 3568 respectively.

## **8 SAMPLING**

Samples for testing taken from rail or road tanker, sprayer or drums must be in accordance with the relevant procedures set out in the sampling section of AS 2157.

**ANNEXURES 3261/A TO 3261/B – (NOT USED)**

**ANNEXURE 3261/C – SCHEDULE OF IDENTIFIED RECORDS**

Refer to Clause 2.2.

The records listed below are Identified Records for the purposes of TfNSW D&C Q6 Annexure Q/E.

<b>Clause</b>	<b>Description of Identified Record</b>
6	Certification at point of delivery that every batch of cutback bitumen complies with Clause 5.2 together with test results reported on NATA endorsed test documents

**ANNEXURES 3261/E TO 3261/L – (NOT USED)**

**ANNEXURE 3261/M – REFERENCED DOCUMENTS**

Refer to Clause 2.4.

**TfNSW Specification**

TfNSW D&C Q6      Quality Management System (Type 6)

**Australian Standards**

AS 2008              Residual bitumen for pavements  
AS 2157              Cutback bitumen  
AS 3568              Oils for reducing the viscosity of bitumen  
AS/NZS ISO 9001    Quality management systems – Requirements