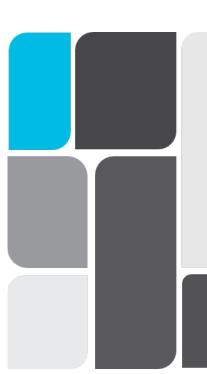
Roads

Master Specification

RD-BP-S3 Supply of Pavement Crack Sealant

Document Information				
KNet Number:	13506223			
Document Version:	3			
Document Date:	July 2022			



DEPARTMENT FOR INFRASTRUCTURE AND TRANSPORT



Roads Contents

Document Amendment Record

Version	Change Description	Date
1	Initial issue (formerly R37)	07/08/19
2	Formatting for publishing	18/09/19
3	Minor edits	July 2022

Document Management

This document is the Property of the Department for Infrastructure and Transport and contains information that is confidential to the Department. It must not be copied or reproduced in any way without the written consent of the Department. This is a controlled document and it will be updated and reissued as approved changes are made.

Roads Contents

Contents

Contents RD-BP-S3 Supply of Pavement Crack Sealant		3
ND-DF	03 Supply of Faverhellt Grack Sealant	4
1	General	4
2	Materials	4
3	Test Procedures	5

RD-BP-S3 Supply of Pavement Crack Sealant

1 General

1.1 This Part specifies the requirements for the supply of elastomeric / crumb rubber sealants used for sealing cracks in existing asphalt and spray seal pavements.

2 Materials

General

- 2.1 Sealant used for pavement crack sealing must be a product approved by the Department. A list of approved crack sealants is included in the Department's Approved Products List, available from https://www.dit.sa.gov.au/standards.
- 2.2 Approved crack sealants must comply with the requirements of this Part.
- 2.3 A manufacturer / Contractor may submit a request to the Department (email: DIT.Tenders@sa.gov.au) for the approval of a crack sealant which is not included in the Approved Products List by providing:
 - a) documented work method for application of the product (Clause 2.4);
 - b) evidence of successful trials (Clause 2.5); and
 - c) documented evidence of compliance with Clauses 2.6 through 2.8.
- 2.4 The Sealant Work Method must be provided, detailing:
 - a) all procedures and relevant documentation for the application of the sealant for each crack sealing operation type; and
 - b) the treated crack width range, types of sites, and bituminous surfacings suitable for this work method.
- 2.5 The manufacturer / Contractor must demonstrate that the sealant is applicable to the types of sites and bituminous surfacings to be crack sealed by conducting trials. No separate payment will be made for the trials.

Sealant

- 2.6 The crack sealant material must:
 - a) be a standard class bitumen to AS 2008 "Residual Bitumen for Pavements", modified with an appropriate polymer and crumb rubber, designed to penetrate the crack, adhere to the crack surface and side walls, and resist further crack activity;
 - b) meet the requirements of Table RD-BP-S3 2-1; and
 - c) not contain coal tar.
- 2.7 The manufacturer / Contractor must identify any fillers used in the sealant.
- 2.8 Test certificates must be provided yearly to email: <u>DIT.Tenders@sa.gov.au</u> and not be greater than 12 months past issue date.

Table RD-BP-S3 2-1 Sealant Test Properties

Test Procedure	Test Name	Binder Property		
Performance Related Properties				
AGPT/T121	Consistency at 60°C using mould A (Pa.s)	5000 minimum		
AGPT/T121	Stiffness at 15°C using mould C (kPa)	150 maximum		
Index Properties				
AGPT/T121	Elastic Recovery at 60°C, 100s (%)	70 minimum		
AGPT/T121	Elastic Recovery at 15°C, 100s (%)	50 minimum		
RMS T1181	Extensibility (%)	500 minimum		
Handling Properties				
AGPT/T111	Viscosity at 165°C (Pa.s)	0.8 maximum		
Production Control Properties				
AGPT/T122	Torsional Recovery at 25°C, 30s (%)	40 – 80		
AGPT/T131	Softening Point Using Glycerine Bath (°C)	95 minimum		
AS2341.12	Penetration 25°C, 100g, 5s (dm)	130 maximum		

3 Test Procedures

- 3.1 The manufacturer / Contractor must use the following test procedures to verify conformance with this Part:
 - a) Austroads test methods

i) AGPT/T121: Shear properties of polymer modified binders (ARRB elastometer)

ii) AGPT/T111: Handling viscosity of polymer modified binders (Brookfield thermosel)

iii) AGPT/T122: Torsional recovery of polymer modified binders

iv) AGPT/T131: Softening point of polymer modified binders

b) Australian Standards

i) AS2341.12: Methods of testing bitumen and related road making products - Penetration 25°C, 100g, 5 s

c) NSW Roads and Maritime Services:

i) T1181: Extension Test for Hot Poured Elastomeric Joint Sealants