

PART R37**SUPPLY OF PAVEMENT CRACK SEALANT****CONTENTS**

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1. GENERAL

- .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**

- .1 Sealant used for pavement crack sealing must be a product approved by DPTI. A list of approved crack sealants is included in the DPTI Approved Products List, available from: <http://www.dpti.sa.gov.au/documents/contractsandtenders/specifications/general>.
- .2 Approved crack sealants must comply with the requirements of this Part R37.
- .3 A manufacturer / contractor may submit a request to DPTI (email: DPTI.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 2.2) ;
 - (b) evidence of successful trials (Clause 2.3); and
 - (c) documented evidence of compliance with Clause 2.4.
- .4 The Sealant Work Method must be provided detailing all procedures and relevant documentation for the application of the sealant for each crack sealing operation type and treated crack width range, types of sites and bituminous surfacings suitable for this work method.
- .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

- .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 2.54; and
 - (c) not contain coal tar.
- .7 The manufacturer must identify any fillers used in the sealant.
- .8 Test certificates must be provided yearly to email: DPTI.Tenders@sa.gov.au and not be greater than 12 months past issue date.

| TABLE 2.5 SEALANT TEST PROPERTIES | | |
|--|---|------------------------|
| TEST PROCEDURE | TEST NAME | BINDER PROPERTY |
| <u>Performance Related Properties</u> | | |
| 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 |
| <u>Index Properties</u> | | |
| 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 |
| <u>Handling Properties</u> | | |
| AGPT/T111 | Viscosity at 165 °C (Pa.s) | 0.8 maximum |
| <u>Production Control Properties</u> | | |
| 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**

- .1 The manufacturer / contractor must use the following test procedures to verify conformance with this Part R37:

Austroads test methods

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

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

AGPT/T122: Torsional recovery of polymer modified binders

AGPT/T131: Softening point of polymer modified binders

Australian Standards

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

NSW Roads and Maritime Services:

T1181: Extension Test for Hot Poured Elastomeric Joint Sealants