

PART R37
SUPPLY OF PAVEMENT CRACK SEALANT

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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 The following documents are referenced in this Part:
 - (a) AS 2008 Residual Bitumen for Pavements

2. MATERIALS**General**

- .1 Sealant used for pavement crack sealing shall 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 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.
- .3 The Sealant Work Method shall 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.
- .4 The manufacturer / contractor shall 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

- .5 The crack sealant material shall:
 - (a) be a standard class bitumen to AS 2008, 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.
- .6 The manufacturer shall identify any fillers used in the sealant.
- .7 Test certificates shall 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 shall 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

4. **HOLD POINTS**

- .1 There are no hold points referenced in this Part.

